

# STIC Search Report

## STIC Database Tracking Number: 210035

TO: Nathan Nutter

Location: Remsen 10b75

**Art Unit: 1711** 

**December 12, 2006** 

Phone: 571-272-1076

**Serial Number: 10 / 516698** 

From: Jan Delaval Location: EIC 1700

Remsen 4a30

Phone: 571-272-2504

jan.delaval@uspto.gov

Search Notes	
•	



## SEARCH REQUEST FORM

### Scientific and Technical Information Center

Requester's Full Name: Nat	han Nutter	Examiner # : 610 46 Date: 11	Dec 7006
Art Unit: \\\frac{1}{7}\(\left(\left)\) Phone !	Number 80 21076	Serial Number: 10 / 5 16, 6  Its Format Preferred (circle) PAPER DI	98 ·
If more than one search is subm		e searches in order of need.	****
Please provide a detailed statement of the Include the elected species or structures, I	search topic, and describe a keywords, synonyms, acron that may have a special me	as specifically as possible the subject matter to by yms,:and registry numbers, and combine with th aning. Give examples or relevant citations, auth	e searched. e concept or
Title of Invention: (Meth	lacrulic este	rs of polyakoxylated	· trimethyd
Inventors (please provide full names):	Popp et al	rs of polyakoxylated	propone
Earliest Priority Filing Date:	06/11/2002		<u> </u>
*For Sequence Searches Only* Please inclu	•	parent, child, divisional, or issued patent numbers) a	long with the
appropriate serial number.  IN THE	CLAIMS:		
	1. (Previou	sly presented) An ester F o	Ē.
formul	-		
		·	
$R_3$	(EO) n <sub>3</sub> / (PO) m <sub>3</sub> / (	O (PO) m <sub>1</sub> (EO) n <sub>1</sub> R <sub>2</sub> R <sub>2</sub> R <sub>3</sub>	
		(PO) m <sub>2</sub>	
		I	
	wherein EO is	s O-CH2-CH2-,	•
	PO is indeper	ndently at each instance O-CH	2-
СН (СН3	)- or O-CH(CH3)-0	CH2-,	
	n1, n2, and n	n3 are independently 4, 5, or	6,
	n1 + n2 + n3	is 14, 15, or 16,	
	m1, m2, and m	m3 are independently 1, 2, or	3,
	m1 + m2 + m3	is 4, 5, or 6, and	
	R1, R2, and I	R3 are independently H or CH3	
*********	*******	************	****
STAFF USE ONLY	Type of Search	Vendors and cost where applicable	
Searcher:	NA Sequence (#)	STN	
Searcher Phone #: 22504	AA Sequence (#)	Dialog	<del></del>
Searcher Location:	Structure (#)	Questel/Orbit	
Date Searcher Picked Up: 12(206	Bibliographic	Dr.Link	
Date Completed: (2/12/0 6	Litigation	Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext	Sequence Systems	
Clerical Prep Time: Zo	Patent Family	WWW/Internet	
Online Time: Y U	Other	Other (specify)	

Other (specify)\_

PTO-1590 (8-01)

Other

=> fil reg FILE 'REGISTRY' ENTERED AT 08:52:43 ON 12 DEC 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 American Chemical Society (ACS).

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 DEC 2006 HIGHEST RN 915185-72-7 DICTIONARY FILE UPDATES: 11 DEC 2006 HIGHEST RN 915185-72-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

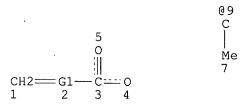
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

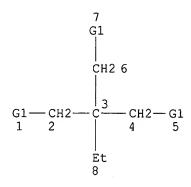
=> d sta que 125 L17 STR



VAR G1=CH/9 NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE L21 STR



VAR G1=O/XNODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: .

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L23 36063 SEA FILE=REGISTRY SSS FUL L21

15641 SEA FILE=REGISTRY SUB=L23 SSS FUL L17

100.0% PROCESSED 17121 ITERATIONS

SEARCH TIME: 00.00.01

15641 ANSWERS

=> d his

L2

L3

L4

(FILE 'HOME' ENTERED AT 07:41:06 ON 12 DEC 2006) SET COST OFF

FILE 'HCAPLUS' ENTERED AT 07:41:25 ON 12 DEC 2006 L17 S US20060020078/PN OR (US2004-516698# OR WO2003-EP6054 OR DE200 SEL RN

FILE 'REGISTRY' ENTERED AT 07:43:08 ON 12 DEC 2006 75 S E1-E75 28 S L2 NOT PMS/CI

1 S L3 AND C6H14O3 L5 1 S L3 AND C3H4O2 L6 1 S L3 AND C4H6O2 L7 47 S L2 NOT L3 L812 S L7 AND 1/NC L9

35 S L7 NOT L8 L10 16 S L9 AND 77-99-6/CRN

16 S L10 AND C2H4O L11 L12 16 S L11 AND C3H6O 4 S L12 AND 4/NC L13

L14 12 S L12 NOT L13 SEL RN 4 9 11

L15 3 S E76-E78 L16 7 S L13, L15

L17 STR

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L18
             50 S L17
L19
                STR
              0 S L19
L20
L21
                STR L19
L22
             50 S L21
L23
          36063 S L21 FUL
                SAV TEMP L23 NUTTER516/A
L24
             50 S L17 SAM SUB=L23
L25
          15641 S L17 FUL SUB=L23
                SAV TEMP L25 NUTTER516A/A
L26
           497 S L25 AND (75-21-8 OR 25322-68-3)/CRN
L27
          2695 S L25 AND C2H40
L28
           2198 S L27 NOT L26
           437 S L25 AND (75-56-9 OR 25322-69-4)/CRN
L29
L30
           1208 S L25 AND C3H60
L31
            771 S L30 NOT L29
            430 S L26-L28 AND L29-L31
L32
            195 S L32 NOT (P OR SI OR N OR S)/ELS
L33
L34
            114 S L33 NOT C6/ES
            107 S L34 NOT L16
L35
L36
             50 S L35 AND (77-99-6 OR 79-41-4)/CRN
L37
             34 S L35 AND 77-99-6/CRN
L38
             28 S L37 AND (79-41-4 OR 79-10-7)/CRN
L39
             24 S L38 NOT (OC4 OR OC4-C6)/ES
                SEL RN 1 2 10-12 14 17 10 22 24
L40
             9 S E79-E87
L41
             15 S L39 AND C6H14O3 NOT L40
               SEL RN 12
L42
             1 S E88
L43
             10 S L37 AND C6H14O3 NOT L39
L44
            16 S L36 NOT L37-L43
L45
            57 S L35 NOT L36-L44
L46
            323 S L32 NOT L35-L45
             51 S L46 NOT (C6 OR OC4 OR OC5 OR OC4-C6 OR C6-C6 OR C5-C5)/ES
L47
L48
             47 S L47 NOT 56-81-5/CRN
L49
             40 S L48 AND (N OR S OR P OR SI)/ELS
L50
              7 S L48 NOT L49
L51
              6 S L50 NOT 28961-43-5/CRN
L52
            410 S L25 AND 107-21-1/CRN
L53
           3059 S L52, L26-L28
L54
            454 S L53 AND L29-L31
L55
             99 S L53 AND 57-55-6/CRN
L56
              0 S L53 AND C3H8O2 NOT L55
L57
            538 S L54, L55
L58
            108 S L57 NOT L32-L51
L59
             22 S L58 AND UNSPECIFIED
L60
             86 S L58 NOT L59
L61
             16 S L60 NOT (C6 OR OC4 OR OC4-C6 OR C6-C6 OR C5-C5)/ES
L62
             6 S L16 NOT 28961-43-5/CRN
L63
             16 S L62, L40, L42, L51
                SAV L63 TEMP NUTTER516B/A
     FILE 'HCAOLD' ENTERED AT 08:47:00 ON 12 DEC 2006
L64
              0 S L63
     FILE 'USPATFULL' ENTERED AT 08:47:04 ON 12 DEC 2006
L65
             15 S L63
L66
             11 S L65 AND (PD<=20020611 OR PRD<=20020611 OR AD<=20020611)
     FILE 'USPATFULL' ENTERED AT 08:49:41 ON .12 DEC 2006
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FILE 'HCAPLUS' ENTERED AT 08:49:48 ON 12 DEC 2006
L67
             23 S L63
L68
             22 S L67 AND (PD<=20020611 OR PRD<=20020611 OR AD<=20020611) AND P
L69
              0 S L67 AND PY<=2002 NOT P/DT
L70
              7 S L68 AND BASF?/PA,CS
L71
              4 S L68 AND (POPP ? OR DANIEL ? OR SCHRODER ? OR SCHROEDER ? OR J
L72
             22 S L68-L71
     FILE 'REGISTRY' ENTERED AT 08:52:43 ON 12 DEC 2006
=> d ide can tot 163
L63 ANSWER 1 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN
RN
     824950-59-6 REGISTRY
ED
     Entered STN: 03 Feb 2005
CN
     2-Propenoic acid, polymer with methyloxirane diblock polymer with oxirane
     ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)
     tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)
MF
     (C6 H14 O3 . 3 (C3 H6 O . C2 H4 O) x . 3 C3 H4 O2 . C3 H4 O2 . C3 H4 O2 .
     Na)x
CI
     PMS
PCT
    Polyacrylic, Polyether, Polyether formed, Polyother
SR
LC
    STN Files:
                 CA, CAPLUS .
    CM
          1
     CRN 7446-81-3 (79-10-7)
     CMF C3 H4 O2 . Na
   0
HO-C-CH-CH2
    Na
          2
    CM
    CRN 79-10-7
    CMF C3 H4 O2
   0
HO-C-CH-CH2
    CM
          3
    CRN
         824950-31-4
    CMF
         C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2
          CM
              4
```

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 6

CRN 697765-47-2 CMF (C3 H6 O . C2 H4 O)x CCI PMS

CM 7

CRN 75-56-9 CMF C3 H6 O

CH3

CM 8

CRN 75-21-8 CMF C2 H4 O



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:350865

L63 ANSWER 2 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN RN 824950-31-4 REGISTRY

ED Entered STN: 03 Feb 2005 CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, diblock (9CI) (CA INDEX NAME) MF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2 CI COM PCT Polyether, Polyether formed SR CA LC STN Files: CA, CAPLUS CM1 CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 697765-47-2 CMF (C3 H6 O . C2 H4 O) x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O

CH3

CM 5

CRN 75-21-8 CMF C2 H4 O  $^{\circ}$ 

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:350865

L63 ANSWER 3 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN

RN **774586-49-1** REGISTRY

ED Entered STN: 04 Nov 2004

CN 2-Propenoic acid, sodium salt, polymer with methyloxirane block polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate (9CI) (CA INDEX NAME)

MF (C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)  $\times$  . 3 C3 H4 O2 . C3 H4 O2 . Na)  $\times$ 

CI PMS

PCT Polyacrylic, Polyether, Polyether formed, Polyother

SR CA

CM 1

CRN 7446-81-3 (79-10-7) CMF C3 H4 O2 . Na

Na

CM 2

CRN 633314-14-4 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 3

CRN 79-10-7 CMF C3 H4 O2

о || но-с-сн==сн<sub>2</sub>

CM 4

CRN 77-99-6 CMF C6 H14 O3

CRN

CMF

75-56-9

C3 H6 O

СНЗ

CM 7

CRN 75-21-8

CMF C2 H4 O

 $\stackrel{\circ}{\triangle}$ 

L63 ANSWER 4 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN **774577-49-0** REGISTRY RN ΕD Entered STN: 04 Nov 2004 CN 2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME) OTHER NAMES: CN Acrylic acid-ethylene oxide-propylene oxide copolymer trimethylolpropane ether triacrylate-sodium acrylate copolymer MF (C6 H14 O3 . 3 (C3 H6 O . C2 H4 O) x . 3 C3 H4 O2 . C3 H4 O2 . C3 H4 02 . Na)x CI PMS PCT Polyacrylic, Polyether, Polyether formed, Polyother SR LC STN Files: CA, CAPLUS CM 1 CRN 7446-81-3 (79-10-7) CMF C3 H4 O2 . Na

Na

. CM 2

CRN 79-10-7 CMF C3 H4 O2

CM 3

CRN 117989-76-1 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ \mid \\ \text{HO-CH}_2-\text{C-Et} \\ \mid \\ \text{CH}_2-\text{OH} \end{array}$$

CM 6

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) $\times$ 

CCI PMS

CM 7

CRN 75-56-9 CMF C3 H6 O



CM 8

CRN 75-21-8 CMF C2 H4 O



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:350828

L63 ANSWER 5 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN

RN **633314-15-5** REGISTRY

ED Entered STN: 02 Jan 2004

CN 2-Propenoic acid, polymer with methyloxirane block polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)

tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

MF (C6 H14 O3 . 3 (C3 H6 O . C2 H4 O) x . 3 C3 H4 O2 . C3 H4 O2 . C3 H4 O2 . Na) x

CI PMS

PCT Polyother

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 7446-81-3 (79-10-7) CMF C3 H4 O2 . Na,

Na

CM 2

CRN 79-10-7 CMF C3 H4 O2

CRN 633314-14-4 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ \mid \\ \text{HO-CH}_2-\text{C-Et} \\ \mid \\ \text{CH}_2-\text{OH} \end{array}$$

CM 6

CRN 106392-12-5 CMF (C3 H6 O . C2 H4 O)x CCI PMS

CM 7

CRN 75-56-9 CMF C3 H6 O

СНЗ

CM 8

CRN 75-21-8 CMF C2 H4 O  $\overset{\circ}{\triangle}$ 

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:43143

REFERENCE 2: 140:28395

L63 ANSWER 6 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN

RN **633314-14-4** REGISTRY

ED Entered STN: 02 Jan 2004

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, block (9CI) (CA INDEX NAME)

MF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CI COM

PCT Polyether, Polyether formed

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:43143

REFERENCE 2: 140:28395

L63 ANSWER 7 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN

RN **161278-82-6** REGISTRY

ED Entered STN: 07 Mar 1995

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Oxirane, polymer with methyloxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediyl (3:1), tris(2-methyl-2-propenoate) (9CI)

MF C6 H14 O3 . 3 C4 H6 O2 . 3 (C3 H6 O . C2 H4 O) x

PCT Polyether, Polyether formed

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 79-41-4 CMF C4 H6 O2

CH<sub>2</sub> || Me-C-CO<sub>2</sub>H

CM 2

CRN 77-99-6 CMF C6 H14 O3

CH3

CM 5

CRN 75-21-8 CMF C2 H4 O

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2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:102019

REFERENCE 2: 122:147331

L63 ANSWER 8 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN

RN **150604-34-5** REGISTRY

ED Entered STN: 14 Oct 1993

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate), block (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Oxirane, polymer with methyloxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate), block (9CI)

DR 633314-17-7

MF C6 H14 O3 . 3 C4 H6 O2 . 3 (C3 H6 O . C2 H4 O) x

PCT Polyether, Polyether formed

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 79-41-4 CMF C4 H6 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 106392-12-5 CMF (C3 H6 O . C2 H4 O) x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



- 3 REFERENCES IN FILE CA (1907 TO DATE)
- 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:43143

REFERENCE 2: 140:28395

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REFERENCE 3: 119:275100
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L63 ANSWER 9 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN
RN
     125472-01-7 REGISTRY
ED
     Entered STN: 16 Feb 1990
CN
     2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether
     with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate
     (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-
     (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, polymer with
     2-propenoic acid (9CI)
CN
     Oxirane, polymer with methyloxirane, ether with 2-ethyl-2-(hydroxymethyl)-
     1,3-propanediol (3:1), tri-2-propenoate, polymer with 2-propenoic acid
     (C6 H14 O3 . 3 (C3 H6 O . C2 H4 O) x . 3 C3 H4 O2 . C3 H4 O2) x
MF
CI
PCT
     Polyacrylic, Polyether, Polyether formed, Polyother
SR
     Environment Canada (EC)
LC
     STN Files: CHEMLIST
     Other Sources:
                    DSL**
         (**Enter CHEMLIST File for up-to-date regulatory information)
     CM
          1
     CRN 79-10-7
     CMF C3 H4 O2
   0
HO-C-CH=CH_2
     CM
          2
    CRN
         117989-76-1
    CMF
         C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2
          CM
               3
          CRN
              79-10-7
          CMF C3 H4 O2
HO-C-CH=CH2
```

CRN 77-99-6 CMF C6 H14 O3

```
СН2-ОН
HO-CH_2-C-Et
        сн2-он
          CM
                5
                9003-11-6
          CRN
          CMF
                (C3 H6 O . C2 H4 O) x
          CCI
                PMS
                CM
                     6
                CRN
                     75-56-9
                CMF
                     C3 H6 O
```

СНЗ

CM 7

CRN 75-21-8 CMF C2 H4 O



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L63 ANSWER 10 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN
RN
     118800-30-9 REGISTRY
ED
     Entered STN: 03 Feb 1989
CN
     Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-
     (hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Oxirane, polymer with methyloxirane, ether with 2-ethyl-2-(hydroxymethyl)-
     1,3-propanediol (3:1), 2-propenoate (9CI)
OTHER NAMES:
CN
    Ethylene oxide-propylene oxide copolymer ether trimethylolpropane with
     acrylate
CN
     Trimethylolpropane-initiated ethylene oxide-propylene oxide copolymer
     acrylate
DR
     151437-90-0
MF
     C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . x C3 H4 O2
CI
PCT
    Polyether, Polyether formed
SR
     CAS Client Services
LC
     STN Files:
                 CA, CAPLUS, CHEMLIST, USPATFULL
    CM
          1
```

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O

СНЗ

CM 5

CRN 75-21-8 CMF C2 H4 O

 $^{\circ}$ 

6 REFERENCES IN FILE CA (1907 TO DATE)

6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 144:171517

REFERENCE 2: 126:344211

REFERENCE 3: 125:302320

```
REFERENCE
            4: 122:92840
REFERENCE
                120:334936
            5:
REFERENCE
            6:
                119:283964
L63 ANSWER 11 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN
RN • 117989-76-1 REGISTRY
ED
     Entered STN: 16 Dec 1988
CN
     Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-
     (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (9CI) (CA INDEX
     NAME)
OTHER CA INDEX NAMES:
     Oxirane, polymer with methyloxirane, ether with 2-ethyl-2-(hydroxymethyl)-
     1,3-propanediol (3:1), tri-2-propenoate (9CI)
MF
     C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2
CI
     COM
PCT
     Polyether, Polyether formed
SR
LC
     STN Files:
                 CA, CAPLUS, USPATFULL
     CM
          1
     CRN
         79-10-7
     CMF C3 H4 O2
    0
HO-C-CH=CH2
          2
     CM
         77-99-6
     CRN
     CMF C6 H14 O3
        CH2-OH
HO-CH2-C-Et
        CH2-OH
     CM
          3
     CRN
          9003-11-6
     CMF
          (C3 H6 O . C2 H4 O) \times
     CCI
          PMS
          CM
               4
          CRN
              75-56-9
          CMF C3 H6 O
```

```
СНЗ
```

CM 5 .

CRN 75-21-8 CMF C2 H4 O

 $\overset{\circ}{\triangle}$ 

- 10 REFERENCES IN FILE CA (1907 TO DATE)
- 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
- 10 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:350828

REFERENCE 2: 140:102019

REFERENCE 3: 133:65978

REFERENCE 4: 132:152313

REFERENCE 5: 131:37785

REFERENCE 6: 127:97521

REFERENCE 7: 122:147331

REFERENCE 8: 119:51269

REFERENCE 9: 119:10401

REFERENCE 10: 110:9783

L63 ANSWER 12 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN

RN 117801-95-3 REGISTRY

ED Entered STN: 02 Dec 1988

CN 2-Propenoic acid, polymer with methyloxirane block polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) 2-propenoate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate, block, polymer with 2-propenoic acid (9CI)

CN Oxirane, polymer with methyloxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate, block, polymer with 2-propenoic acid (9CI)

MF (C6 H14 O3 . 3 (C3 H6 O . C2 H4 O) x . x C3 H4 O2 . C3 H4 O2) x

CI PMS

PCT Polyacrylic, Polyether, Polyether formed, Polyother

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 4

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ \mid \\ \text{HO-CH}_2-\text{C-Et} \\ \mid \\ \text{CH}_2-\text{OH} \end{array}.$$

CM 5

CRN 106392-12-5 CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 6

CRN 75-56-9 CMF C3 H6 O

CH3

CRN 75-21-8 CMF C2 H4 O



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 110:10884

L63 ANSWER 13 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN

RN **117742-99-1** REGISTRY

ED Entered STN: 02 Dec 1988

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate, block (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Oxirane, polymer with methyloxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate, block (9CI)

MF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O) x . x C3 H4 O2

CI COM

PCT Polyether, Polyether formed

SR CA

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$${\rm CH_2-OH}$$
 . HO-CH<sub>2</sub>-C-Et | CH<sub>2</sub>-OH

CM 3

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O)  $\times$ 

CCI PMS

CRN 75-56-9 CMF C3 H6 O



CM5

CRN 75-21-8 CMF C2 H4 O



```
L63 ANSWER 14 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN
RN
     115165-81-6 REGISTRY
ED
     Entered STN: 09 Jul 1988
CN
     Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-
      (hydroxymethyl)-1,3-propanediol (3:1), 2-methyl-2-propenoate, block (9CI)
      (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Oxirane, polymer with methyloxirane, ether with 2-ethyl-2-(hydroxymethyl)-
     1,3-propanediol (3:1), 2-methyl-2-propenoate, block (9CI) C6 H14 O3 . x C4 H6 O2 . 3 (C3 H6 O . C2 H4 O)x
ΜF
PCT
     Polyether, Polyether formed
SR
     CA
LC
     STN Files:
                   CA, CAPLUS, USPATFULL
     CM
           1
     CRN 79-41-4
     CMF C4 H6 O2
    CH<sub>2</sub>
Me-C-CO_2H
```

2 CM

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CRN 106392-12-5.

CMF (C3 H6 O . C2 H4 O) $\times$ 

CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



2 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 119:283964

REFERENCE 2: 110:10884

L63 ANSWER 15 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN

RN **67184-01-4** REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-

(hydroxymethyl)-1,3-propanediol (3:1), polymer with 2-propenoic acid (9CI)

CN Oxirane, polymer with methyloxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), polymer with 2-propenoic acid (9CI)

OTHER NAMES:

CN Acrylic acid-polyethylene-polypropylene glycol trimethylolpropane ether (3:1) copolymer

MF (C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . C3 H4 O2)x

CI PMS PCT Polyacrylic, Polyether, Polyether formed, Polyother STN Files: CA, CAPLUS, USPATFULL 1 CMCRN 79-10-7 CMF C3 H4 O2 0  $HO-C-CH=CH_2$ 2 CM CRN 52624-57-4 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)  $\times$ 3 CM CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 4

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 5

CRN 75-56-9

CMF C3 H6 O



CM 6

CRN 75-21-8

CMF C2 H4 0

 $\stackrel{\circ}{\triangle}$ 

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 90:7044

REFERENCE 2: 89:111127

L63 ANSWER 16 OF 16 REGISTRY COPYRIGHT 2006 ACS on STN

RN **67183-99-7** REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenoic acid, 2-methyl-, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-methyl-2-propenoic acid (9CI)

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), polymer with 2-methyl-2-propenoic acid and 2-propenoic acid (9CI)

CN Oxirane, polymer with methyloxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), polymer with 2-methyl-2-propenoic acid and 2-propenoic acid (9CI)

MF (C6 H14 O3 . C4 H6 O2 . 3 (C3 H6 O . C2 H4 O)x . C3 H4 O2)x

CI PMS

PCT Polyacrylic, Polyether, Polyether formed, Polyother

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 79-41-4 CMF C4 H6 O2

CM 2

CRN 79-10-7 CMF C3 H4 O2

CM 3

CRN 52624-57-4

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x

CM 4

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 5

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O)x CCI PMS

CM 6

CRN 75-56-9 CMF C3 H6 O



CM 7

CRN 75-21-8 CMF C2 H4 O

 $\overset{\circ}{\triangle}$ 

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 90:7044

REFERENCE 2: 89:111127

=> fil uspatful FILE 'USPATFULL' ENTERED AT 08:53:04 ON 12 DEC 2006 CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 12 Dec 2006 (20061212/PD) FILE LAST UPDATED: 12 Dec 2006 (20061212/ED) HIGHEST GRANTED PATENT NUMBER: US7150045 HIGHEST APPLICATION PUBLICATION NUMBER: US2006277640

CA INDEXING IS CURRENT THROUGH 12 Dec 2006 (20061212/UPCA) ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 12 Dec 2006 (20061212/PD) REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2006 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2006

```
=> d 166 bib abs hitstr tot
L66 ANSWER 1 OF 11 USPATFULL on STN
ΑN
       2006:22244 USPATFULL
TΤ
       (Meth) acrylic esters of polyalkoxylated trimethylolpropane
IN
       Popp, Andreas, Birkenheide, GERMANY, FEDERAL REPUBLIC OF
       Daniel, Thomas, Waldsee, GERMANY, FEDERAL REPUBLIC OF
       Schroder, Jurgen, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF
       Jaworek, Thomas, Kallstadt, GERMANY, FEDERAL REPUBLIC OF
       Funk, Rudiger, Niedernhausen, GERMANY, FEDERAL REPUBLIC OF
       Schwalm, Reinhold, Wachenheim, GERMANY, FEDERAL REPUBLIC OF
       Wesimantel, Matthias, Jossgrund-Oberndorf, GERMANY, FEDERAL REPUBLIC OF
       Riegel, Ulrich, Frankfurt, GERMANY, FEDERAL REPUBLIC OF
PΙ
       US 2006020078
                           A1 20060126
ΑI
       US 2003-516698
                           A1 20030610 (10)
       WO 2003-EP6054
                               20030610
                               20041201 PCT 371 date
PRAI
       DE 2002-10225943
                           20020611
                                                                     <--
       DE 2003-10315336
                           20030403
DΤ
       Utility
FS
       APPLICATION
LREP
       MARSHALL, GERSTEIN & BORUN LLP, 233 S. WACKER DRIVE, SUITE 6300, SEARS
       TOWER, CHICAGO, IL, 60606, US
CLMN
       Number of Claims: 30
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 2050
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       The present invention relates to novel (meth)acrylic esters of
       polyalkoxylated trimethylolpropane of the formula ##STR1## where EO
       is O--CH2-CH2- PO is independently at each instance O--CH2-CH(CH3)- or
       O--CH(CH3)-CH2- n1, n2 and n3 are independently 4, 5 or 6, n1+n2+n3 is
       14, 15 or 16, m1, m2 and m3 are independently 1, 2 or 3, m1+m2+m3 is 4,
       5 or 6, R1, R2 and R3 are independently H or CH3, a simplified process
       for preparing these esters and the use of reaction mixtures thus
       obtainable.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    150604-34-5P
        (acrylic esters of alkoxylated trimethylolpropane useful in production of
        hydrogels)
RN
     150604-34-5 USPATFULL
CN
     Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-
       (hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate),
       block (9CI) (CA INDEX NAME)
   · CM
          1
```

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ \parallel \\ \text{Me-C-CO}_2\text{H} \end{array}$$

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) $\times$ 

CCI PMS

CDES 8:PM, BLOCK

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



#### IT 633314-15-5P

(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 633314-15-5 USPATFULL

CN 2-Propenoic acid, polymer with methyloxirane block polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM '1

CRN · 7446-81-3 CMF C3 H4 O2 . Na

● Na

2 CM

CRN 79-10-7 CMF C3 H4 O2

CM 3

CRN 633314-14-4

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2 CDES 8:GD, ESTER, ETHER

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 77-99-6 CMF C6 H14 O3

CM 6

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CDES 8:PM, BLOCK

CM 7

CRN 75-56-9 CMF C3 H6 O

СН3

CM 8

CRN 75-21-8 CMF C2 H4 O

 $\overset{\circ}{\triangle}$ 

IT 633314-14-4P

(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 633314-14-4 USPATFULL

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

О || НО- С- СН--- СН<sub>2</sub>

CM 2

CRN 77-99-6 CMF C6 H14 O3

 $\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$ 

CM 3 CRN 106392-12-5 CMF (C3 H6 O . C2 H4 O) xCCI PMS CDES 8:PM, BLOCK 4 CMCRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



L66

ANSWER 2 OF 11 USPATFULL on STN AN 2005:248552 USPATFULL ΤI (Meth)acrylic esters of polyalkoxylated trimethylolpropane IN Popp, Andreas, Birkenheide, GERMANY, FEDERAL REPUBLIC OF Daniel, Thomas, Waldsee, GERMANY, FEDERAL REPUBLIC OF Schroder, Jurgen, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF Jaworek, Thomas, Kallstadt, GERMANY, FEDERAL REPUBLIC OF Funk, Rudiger, Niedernhausen, GERMANY, FEDERAL REPUBLIC OF Schwalm, Reinhold, Wachenheim, GERMANY, FEDERAL REPUBLIC OF Weismantel, Matthias, Jossgrund-Oberndorf, GERMANY, FEDERAL REPUBLIC OF Riegel, Ulrich, Frankfurt, GERMANY, FEDERAL REPUBLIC OF PΑ BASF AKTIENGESELLSCHAFT a German Corporation, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF, D-67056 (non-U.S. corporation) PΙ US 2005215752 A1 20050929 ΑI US 2003-517042 A1 · 20030606 (10) WO 2003-EP5953 20030606 20041203 PCT 371 date PRAI DE 2002-10225943 20020611 DE 2003-10315345 20030403 DE 2003-10315669 20030404 DT Utility FS APPLICATION LREP MARSHALL, GERSTEIN & BORUN LLP, 233 S. WACKER DRIVE, SUITE 6300, SEARS TOWER, CHICAGO, IL, 60606, US CLMN Number of Claims: 35 ECL Exemplary Claim: 1 DRWN No Drawings LN.CNT 2223 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates to novel (meth)acrylic esters of polyalkoxylated trimethylolpropane of the formula ##STR1## where AO is for each AO independently at each instance EO, PO or BO where EO is O--CH2-CH2- PO is independently at each instance O--CH2-CH(CH3) - or O--CH(CH3)-CH2- BO is independently at each instance O--CH2-CH(CH2-CH3)- or O--CH(CH2-CH3)-CH2- p1+p2+p3 is 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74 or 75, R1, R2 and R3 are independently H or CH3, a simplified process for preparing these esters and the use of reaction mixtures thus obtainable.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

#### IT 150604-34-5P

(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 150604-34-5 USPATFULL

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate), block (9CI) (CA INDEX NAME)

CM 1

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 2

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) $\times$ 

CCI PMS

CDES 8:PM, BLOCK

CM 4

CRN 75-56-9 CMF C3 H6 O СНЗ

CM 5

CRN 75-21-8 CMF C2 H4 O

 $\stackrel{\circ}{\triangle}$ 

IT 633314-15-5P

(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 633314-15-5 USPATFULL

CN 2-Propenoic acid, polymer with methyloxirane block polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3 CMF C3 H4 O2 . Na

Na

CM 2

CRN 79-10-7 CMF C3 H4 O2

CM 3

CRN 633314-14-4 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2 CDES 8:GD, ESTER, ETHER

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 6

CRN 106392-12-5 CMF (C3 H6 O . C2 H4 O) x CCI PMS CDES 8:PM, BLOCK

CM 7

CRN 75-56-9 CMF C3 H6 O

CH3

CM 8

CRN 75-21-8 CMF C2 H4 O



## IT 633314-14-4P

(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)  $\cdot$ 

RN 633314-14-4 USPATFULL

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, block (9CI) (CA INDEX NAME)

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c|c} & \operatorname{CH}_2-\operatorname{OH} \\ \vdots \\ \operatorname{HO-CH}_2-\operatorname{C-Et} \\ \vdots \\ \operatorname{CH}_2-\operatorname{OH} \end{array}$$

CM 3

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CDES 8:PM, BLOCK

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



L66 ANSWER 3 OF 11 USPATFULL on STN

AN 2005:203484 USPATFULL

TI Method for the production of esters of polyalcohols

```
IN
       Jaworek, Thomas, Kallstadt, GERMANY, FEDERAL REPUBLIC OF
       Daniel, Thomas, Waldsee, GERMANY, FEDERAL REPUBLIC OF
       Wolf, Lothar, Torno, GERMANY, FEDERAL REPUBLIC OF
       Koniger, Rainer, Mannheim, GERMANY, FEDERAL REPUBLIC OF
       Schwalm, Reinhold, Wachenheim, GERMANY, FEDERAL REPUBLIC OF
       Hartmann, Gabriele, Hockenheim, GERMANY, FEDERAL REPUBLIC OF
       Wickel, Stefan, Bissersheim, GERMANY, FEDERAL REPUBLIC OF
PΑ
       BASF Aktiengesellschaft, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF,
       67056 (non-U.S. corporation)
PΙ
       US 2005176910
                           A1 20050811
ΑI
       US 2003-514569
                            A1 20030606 (10)
       WO 2003-EP5940
                                20030606
PRAI
       DE 2002-10225943
                            20020611
DT
       Utility
FS
       APPLICATION
LREP
       OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940 DUKE STREET,
       ALEXANDRIA, VA, 22314, US
CLMN
       Number of Claims: 29
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 2418
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       Unsaturated acids are esterified with polyalcohols. The resulting
       reaction mixtures have utility.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    150604-34-5P
        (acrylic esters of alkoxylated trimethylolpropane useful in production of
        hydrogels)
RN
     150604-34-5 USPATFULL
CN
     Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-
       (hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate),
       block (9CI) (CA INDEX NAME)
     CM
          1
     CRN 79-41-4
     CMF C4 H6 O2
    CH<sub>2</sub>
Me-C-CO2H
          2
     CM
     CRN
         77-99-6
     CMF C6 H14 O3
```

CH2-OH

 $CH_2 - OH$ 

HO-CH2-C-Et

```
CRN 106392-12-5
CMF (C3 H6 O . C2 H4 O) x
CCI PMS
CDES 8: PM, BLOCK

CM 4

CRN 75-56-9
CMF C3 H6 O
```

СНЗ

CM

3

CM 5

CRN 75-21-8 CMF C2 H4 O



IT 633314-15-5P

(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 633314-15-5 USPATFULL

CN 2-Propenoic acid, polymer with methyloxirane block polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3 CMF C3 H4 O2 . Na

Na

CM 2

CRN 79-10-7 CMF C3 H4 O2

CRN 633314-14-4 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2 CDES 8:GD, ESTER, ETHER

CM 4

CRN 79-10-7 CMF C3 H4 O2 .

CM 5

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 6

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O)  $\times$ 

CCI PMS

CDES 8: PM, BLOCK

CM 7

CRN 75-56-9 CMF C3 H6 O



CRN 75-21-8 CMF C2 H4 O



IT 633314-14-4P

(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 633314-14-4 USPATFULL

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CDES 8:PM, BLOCK

CM 4

CRN 75-56-9 CMF C3 H6 O



CRN 75-21-8 CMF C2 H4 O



 $Me-C-CO_2H$ 

```
L66
    ANSWER 4 OF 11 USPATFULL on STN
ΑN
       2005:190290 USPATFULL
TI
       (Meth)acrylic esters of polyalkoxylated glycerine
IN
       Popp, Andreas A, Birkenheide, GERMANY, FEDERAL REPUBLIC OF
       Daniel, Thomas, Waldsee, GERMANY, FEDERAL REPUBLIC OF
       Schroder, Jurgen, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF
       Kaworek, Thomas, Kallstadt, GERMANY, FEDERAL REPUBLIC OF
       Funk, Rudiger, Niedernhausen, GERMANY, FEDERAL REPUBLIC OF
       Schwalm, Reinhold, Wachenheim, GERMANY, FEDERAL REPUBLIC OF
       Weismantel, Matthias, Jossgrund-Oberndorf, GERMANY, FEDERAL REPUBLIC OF
       Riegel, Ulrich, Frankfurt, GERMANY, FEDERAL REPUBLIC OF
PΙ
       US 2005165208
                           A1 20050728
ΑI
       US 2003-516702
                           A1 20030610 (10)
       WO 2003-EP6028
                               20030610
PRAI
       DE 2002-10225943
                           20020611
                                                                      <--
       DE 2003-10319462
                           20030429
DT
       Utility
FS
       APPLICATION
LREP
      MARSHALL, GERSTEIN & BORUN LLP, 233 S. WACKER DRIVE, SUITE 6300, SEARS
       TOWER, CHICAGO, IL, 60606, US
CLMN
       Number of Claims: 34
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 2151
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       The present invention relates to novel (meth) acrylic esters of
       polyalkoxylated glycerol, a simplified process for preparing these
       esters and the use of reaction mixtures thus obtainable.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
   150604-34-5P
        (acrylic esters of alkoxylated trimethylolpropane useful in production of
        hydrogels)
RN
     150604-34-5 USPATFULL
CN
    Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-
       (hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate),
       block (9CI) (CA INDEX NAME)
    CM
          1
         79-41-4
    CRN
    CMF
         C4 H6 O2
   CH<sub>2</sub>
```

CRN 77-99-6
CMF C6 H14 O3

CH2-OH
HO-CH2-C-Et
CH2-OH

CM 3

CRN 106392-12-5
CMF (C3 H6 O . C2 H4 O) x
CCI PMS
CDES 8:PM, BLOCK

CM

4

CRN 75-56-9 CMF C3 H6 O

CM

2

СНЗ

CM 5

CRN 75-21-8

CMF C2 H4 O

 $^{\circ}$ 

CN

IT 633314-15-5P

(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)  $\frac{1}{2}$ 

RN 633314-15-5 USPATFULL

2-Propenoic acid, polymer with methyloxirane block polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3 CMF C3 H4 O2 . Na

Na

CM 2

CRN 79-10-7 CMF C3 H4 O2

CM 3

CRN 633314-14-4

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2 CDES 8:GD, ESTER, ETHER

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN. 77-99-6 CMF C6 H14 O3

CM 6

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O)  $\times$ 

CCI PMS

CDES 8: PM, BLOCK

CM 7

CRN 75-56-9 CMF C3 H6 O

СНЗ

CM 8

CRN 75-21-8 CMF C2 H4 O

 $\stackrel{\circ}{\triangle}$ 

IT 633314-14-4P

(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 633314-14-4 USPATFULL

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

O || . HO- C- CH== CH<sub>2</sub>

CM 2

CRN 77-99-6 CMF C6 H14 O3

 $\begin{array}{c} & \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$ 

CRN 106392-12-5
CMF (C3 H6 O . C2 H4 O) x
CCI PMS
CDES 8:PM, BLOCK

CM 4

CRN 75-56-9
CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



ANSWER 5 OF 11 USPATFULL on STN L66 AN 1998:119210 USPATFULL TT Continuous process for the preparation of highly stable, finely divided, low viscosity polymer polyols of small average particle size IN Kratz, Mark R., Krefeld, Germany, Federal Republic of Dietrich, Manfred, Leverkusen, Germany, Federal Republic of Heinemann, Torsten, Koln, Germany, Federal Republic of Jacobs, Gundolf, Rosrath, Germany, Federal Republic of Sanders, Josef, Leverkusen, Germany, Federal Republic of Woynar, Helmut, Dormagen, Germany, Federal Republic of PA Bayer Aktiengesellschaft, Leverkusen, Germany, Federal Republic of (non-U.S. corporation) PΤ US 5814699 19980929 <--ΑI US 1996-723659 19961003 (8) <--EP 95115940 PRAI 19951010 <--DT Utility FS Granted EXNAM Primary Examiner: Zemel, Irina S. LREP Gil, Joseph C., Brown, N. Denise CLMN Number of Claims: 17 ECL Exemplary Claim: 1 DRWN No Drawings LN.CNT 1275 CAS INDEXING IS AVAILABLE FOR THIS PATENT. AΒ A continuous process for the preparation of highly stable, finely divided, low viscosity polymer polyols of small average particle size wherein in the first step an intermediate is prepared by reacting (1) a mixture of at least two ethylenically unsaturated monomers, preferably styrene and acrylonitrile, in a mixture comprising (2) a base polyol and (3) a macromer in the presence of (4) a free radical initiator, (5) a solvent having moderate chain transfer activity, and, optionally, (6) a

reaction moderator at a temperature of at least 100° C., such

that the intermediate contains at least about 12% by weight of macromer, based on the weight of the base polyol and macromer, and a solids content of at least about 15% by weight and less than about 30% by weight, based on the weight of the base polyol, macromer and ethylenically unsaturated monomers. The intermediate, which functions as a seed for further polymerization, is then further reacted, in one or more stirred-tank reactors in series, in a mixture of at least two ethylenically unsaturated monomers, preferably styrene and acrylonitrile, in a base polyol and, optionally, a macromer, in the presence of solvent, initiator and a reaction moderator which are distributed among the remaining reactors.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 118800-30-9P

(macromer; continuous manufacture of highly stable, finely divided, low viscosity polymer polyols of small average particle size from macromers for polyurethane foams)

RN 118800-30-9 USPATFULL

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} & \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 9003-11-6 CMF

(C3 H6 O . C2 H4 O)x CCI

PMS

CM 4

75-56-9 CRN CMF C3 H6 O CH3

CM 5

CRN 75-21-8 CMF C2 H4 O



```
L66 ANSWER 6 OF 11 USPATFULL on STN
AN
       1998:75318 USPATFULL
ΤI
       Non-aqueous electrolyte secondary battery
IN
       Matsui, Tooru, Fujiidera, Japan
       Takeyama, Kenichi, Osaka, Japan
PΑ
       Matsushita Electric Industrial Co., Ltd., Osaka-fu, Japan (non-U.S.
       corporation)
PΙ
       US 5773166
                               19980630
                                                                     <--
ΑI
       US 1996-756778
                               19961126 (8)
                                                                     <--
PRAI
       JP 1995-309381
                           19951128
                                                                     <--
DТ
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Bell, Bruce F.
LREP
       Panitch Schwarze Jacobs & Nadel, P.C.
CLMN
       Number of Claims: 3
ECL
       Exemplary Claim: 1
DRWN
       3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 404
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       A non-aqueous electrolyte secondary battery employs a negative electrode
       which contains an alkali metal as an active material, and is provided
       with a polymer film thereon, the polymer film being provided with a gel
       electrolyte thereon. The polymer film is made of a polymeric monomer
       which has [molecular weight/terminal polymer functional group number] of
       500 or less, and a structure represented by one of the formulas (1)-(4):
       ##STR1## wherein EO refers to CH.sub.2 CH.sub.2 O, PO refers to CH.sub.2
       (CH.sub.3) CHO, (EO.sub.m PO.sub.n) indicates one of random
       polymerization and block polymerization, and wherein m and n do not
       represent 0 at the same time where 0 \le m and 0 \le n.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 117989-76-1
        (flat non-aqueous electrolyte secondary alkali metal battery with polymer
        coated anode)
RN
     117989-76-1 USPATFULL
CN
     Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-
       (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (9CI) (CA INDEX
       NAME)
     CM
          1
     CRN 79-10-7
     CMF C3 H4 O2
```

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O)x CCI PMS

CM 4

CRN '75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



IN

L66 ANSWER 7 OF 11 USPATFULL on STN

AN 96:82734 USPATFULL

TI Low viscosity polymer polyols a process for their production as well as the manufacture of polyurethane from materials

Sanders, Josef, Leverkusen, Germany, Federal Republic of Kratz, Mark, Krefeld, Germany, Federal Republic of

Dietrich, Manfred, Leverkusen, Germany, Federal Republic of Heinemann, Torsten, K oln, Germany, Federal Republic of Woynar, Helmut, Dormagen, Germany, Federal Republic of Jacobs, Gundolf, R osrath, Germany, Federal Republic of

Scholz, Uwe, K oln, Germany, Federal Republic of

PA Bayer Adtiengesellschaft, Leverkusen, Germany, Federal Republic of

(non-U.S. corporation)

US 5554662 19960910

ΑI US 1995-470695 19950606 (8) <--PRAI DE 1995-19508578 19950310 <--

DТ Utility FS Granted

EXNAM Primary Examiner: Foelak, Morton LREP Gil, Joseph C., Brown, N. Denise

CLMN Number of Claims: 15 ECL Exemplary Claim: 1 No Drawings DRWN

LN.CNT 852

PΙ

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A process for the production of stable, agglomerate-free, low viscosity AB graft copolymer dispersions through radical polymerization of ethylenically unsaturated monomers in the presence of a base polyol, a macromer, an enol ether of a specific formula, and optionally, an organic solvent. These enol ethers correspond to the general formula:

A=CH--O--R

wherein:

A represents a di-valent residue of the formula ##STR1## R represents an aliphatic hydrocarbon radical having 1 to 18 carbon atoms, a cycloaliphatic hydrocarbon radical having 5 to 10 carbon atoms, or a substituted or unsubstituted benzyl radical;

and

R' represents a hydrogen atom or an aliphatic hydrocarbon radical having 1 to 8 carbon atoms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 118800-30-9P

(low viscosity polymer polyols, a process for their production, and manufacture

of polyurethane from materials)

118800-30-9 USPATFULL RN

Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate (9CI) (CA INDEX NAME)

1 CM

CRN 79-10-7 CMF C3 H4 O2

HO-C-CH-CH2

CRN 77-99-6 CMF C6 H14 O3 .

CM 3

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) $\times$ 

CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



```
ANSWER 8 OF 11 USPATFULL on STN
L66
AN
       95:67083 USPATFULL
TI
       Galvanic cell
IN
       Kono, Michiyuki, Neyagawa, Japan
       Mori, Shigeo, Kyoto, Japan
       Takeda, Kazunari, Takatsuki, Japan
       Izuti, Shyuiti, Shiga, Japan
PA
       Dai-Ichi Kogyo Seigaku Co., Ltd., Kyoto, Japan (non-U.S. corporation)
PΙ
                                19950725
       US 5436090
                                                                      <--
       WO 9314529 19930722
                                                                      <--
                                19930921 (8)
ΑI
       US 1993-119214
                                                                      <--
       WO 1993-JP64
                                19930120
                                                                      <--
                                         PCT 371 date
                                19930921
                                19930921
                                         PCT 102(e) date
PRAI
       JP 1992-31451
                            19920121
                                                                      <--
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Skapars, Anthony
LREP
       Morgan & Finnegan
```

CLMN Number of Claims: 11 ECL Exemplary Claim: 1

DRWN 5 Drawing Figure(s); 3 Drawing Page(s)

LN.CNT 861

AΒ

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A cell is obtained with use of a solid electrolyte prepared by dissolving a trifunctional terminal acryloyl-modified alkylene oxide polymer having a polymer chain represented by the following formula (1) and an electrolyte salt in a solvent, and then by crosslinking it by a radioactive ray irradiation and/or by heating. The solvent is used in a ratio of 220 to 950 weight % based on the above polymer. ##STR1## (R' is an alkyl group having 1 to 6 carbon atoms, R" is hydrogen or methyl group, and m and n are respectively 0 or an integer of at least 1 and m+n≥35.)

In a typical galvanic cell, a solid electrolyte combined with a positive electrode active material, which is obtained by mixing said trifunctional terminal acryloyl-modified alkylene oxide polymer with the electrolyte salt, the solvent and the positive electrode active material and crosslinking it by radioactive ray irradiation and/or heating, is used as a composite positive electrode and, between the positive electrode and a negative electrode, an electrode prepared by crosslinking a mixture of said trifunctional terminal acryloyl-modified alkylene oxide polymer, the electrolyte salt, the solvent and the positive electrode active material by radioactive ray irradiation and/or by heating is placed as a separator.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 150604-34-5

(crosslinked, electrolyte containing lithium salts and solvents and, for batteries)

RN 150604-34-5 USPATFULL

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate), block (9CI) (CA INDEX NAME)

CM 1

CRN 79-41-4 CMF C4 H6 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

```
CRN 106392-12-5
CMF (C3 H6 O . C2 H4 O) x
CCI PMS
CDES 8:PM, BLOCK

CM 4

CRN 75-56-9
CMF C3 H6 O
```



3

CM 5

CRN 75-21-8 CMF C2 H4 O



```
L66
    ANSWER 9 OF 11 USPATFULL on STN
ΑN
       94:90914 USPATFULL
ΤI
       Crosslinking curable resin composition
IN
       Kushi, Kenji, Otake, Japan
       Inukai, Ken-ichi, Otake, Japan
       Iseki, Takayuki, Otake, Japan
       Koyanagi, Seiya, Otake, Japan
       Mitsubishi Rayon Co., Ltd., Tokyo, Japan (non-U.S. corporation)
PΑ
PΙ
       US 5356754
                               19941018
                                                                     <--
AΙ
       US 1992-950500
                               19920925 (7)
                                                                     <--
DT
       Utility
FS
       Granted
EXNAM
      Primary Examiner: Brammer, Jack P.
LREP
       Oblon, Spivak, McClelland, Maier & Neustadt
CLMN
       Number of Claims: 5
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 1086
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A photopolymerizable or radiation polymerizable alkaline developing
       crosslinking curable resin composition possessing superior antiplating
       properties and a short stripping period, in which the stripped plate is
       not easily dissolved in the stripping fluid, and which is comprising:
```

(a) 5-30 parts by weight of at least one compound possessing in one molecule on the average 1.5 or more (meth)acryloyloxy groups, which is obtained by reacting (meth)acrylic acid with a reaction product formed by adding; to a polyatomic alcohol possessing 3 or more OH groups in one

molecule, an alkylene oxide containing propylene oxide in an amount of 67% molar or greater in an amount of 5-12 moles per mole of OH group in the aforementioned polyatomic alcohol,

- (b) 5-30 parts by weight of at least one crosslinkable monomer other than that stated above in (a), possessing in one molecule 2 or more ethylenically unsaturated groups,
- (c) 45-75 parts by weight of a thermoplastic polymer for use as a binder, the thermoplastic polymer in turn being formed of 15-35 wt % of at least one  $\alpha,\ \beta$ -unsaturated carboxyl group containing a monomer having 3-15 carbon atoms, and 65-85 wt % of another copolymerizable monomer, and
- (d) 0-10 parts by weight of a photopolymerization initiator.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 118800-30-9P

(crosslinking curable resin composition)

RN 118800-30-9 USPATFULL

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) $\times$ 

CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O

```
CH3
```

CRN 75-21-8 CMF C2 H4 O



```
L66
     ANSWER 10 OF 11 USPATFULL on STN
AN
       94:90717 USPATFULL
TΙ
       Solid electrolyte
IN
       Kono, Michiyuki, Neyagawa, Japan
       Motogami, Kenji, Takatsuki, Japan
       Mori, Shigeo, Kyoto, Japan
PΑ
       Dai-Ichi Kogyo Seiyaku Co., Ltd., Kyoto, Japan (non-U.S. corporation)
PΤ
       US 5356553
                               19941018
ΑI
       US 1992-957258
                               19921006 (7)
                                                                     <--
PRAI
       JP 1991-3296173
                           19911015
                                                                     <--
DT
       Utility
FS
       Granted
EXNAM
      Primary Examiner: Willis, Jr., Prince; Assistant Examiner: Diamond, Alan
LREP
       Morgan & Finnegan
CLMN
       Number of Claims: 3
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 483
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       A solid electrolyte is prepared by dissolving a solvent and an
       electrolyte salt in a trifunctional polymer and crosslinking it by an
       irradiation of an active radiation and/or heating, characterized by that
       said trifunctional polymer is a trifunctional terminal acryloyl-modified
       alkylene oxide polymer containing a polymer chain expressed by the
       following general formula (I) as each functional chain; ##STR1## in
      which R' is a lower alkyl group, R" is hydrogen or methyl group and m or
       n is 0 or an integer of at least 1 and m+n\geq35, and the amount of
       said solvent is 220 to 950 weight % based on said trifunctional terminal
       acryloyl-modified alkylene oxide polymer.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 115165-81-6P 118800-30-9P
        (preparation of, for electrolytes)
RN
     115165-81-6 USPATFULL
CN
    Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-
       (hydroxymethyl)-1,3-propanediol (3:1), 2-methyl-2-propenoate, block
       (9CI) (CA INDEX NAME)
   · CM 1
```

CRN 79-41-4 CMF C4 H6 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O)  $\times$ 

CCI PMS

CDES 8: PM, BLOCK .

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



RN 118800-30-9 USPATFULL

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate (9CI) (CA INDEX NAME)

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O)x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O

СНЗ

CM 5

CRN 75-21-8 CMF C2 H4 O



L66 ANSWER 11 OF 11 USPATFULL on STN

AN 80:28122 USPATFULL

TI Stable suspensions of inorganic fillers in organic polyhydroxyl

IN von Bonin, Wulf, Leverkusen, Germany, Federal Republic of

PA Bayer Aktiengesellschaft, Leverkusen, Germany, Federal Republic of (non-U.S. corporation)

```
PΙ
       US 4207227
                                19800610
ΑI
       US 1977-856075
                                19771130 (5)
                                                                      <--
PRAI
       DE 1976-2654746
                            19761203
                                                                      <--
       DE 1977-2714291
                            19770331
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Griffin, Ronald W.
LREP
       Harsh, Gene, Gil, Joseph C., Olson, R. Brent
CLMN
       Number of Claims: 23
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 947
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The instant invention relates to a process for the preparation of stable
       suspensions of inorganic fillers in polyhydroxyl compounds, which are
       suitable for the preparation of polyurethanes, to the suspensions
       obtainable by this process and to their use for the preparation of
       polyurethanes. The suspensions are produced by grafting an olefinically
       unsaturated carboxylic acid (and optionally other olefinically
       unsaturated monomers) onto polyols. The presence of from 0.005 to 15% by
       weight of carboxyl groups in the polyol allows for the production of
       stable dispersion of inorganic fillers in polyols.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
   67183-99-7 67184-01-4
        (graft, for stabilization of polyol-filler suspensions for polyurethane.
        manufacture)
RN
     67183-99-7 USPATFULL
CN
     2-Propenoic acid, 2-methyl-, polymer with methyloxirane polymer with
       oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and
       2-propenoic acid (9CI) (CA INDEX NAME).
     CM
          1
     CRN
         79-41-4
     CMF C4 H6 O2
   CH<sub>2</sub>
Me-C-CO2H
     CM
     CRN
         79-10-7
     CMF C3. H4 O2
HO-C-CH-CH2
```

3

CRN 52624-57-4

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x

CDES 8:GD, ETHER

CM 4

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 5

CRN .9003-11-6

CMF (C3 H6 O . C2 H4 O)  $\times$ 

CCI PMS

CM 6

CRN 75-56-9 CMF C3 H6 O



CM 7

CRN 75-21-8 CMF C2 H4 O



RN 67184-01-4 USPATFULL

CN 2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CRN 52624-57-4

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O) x

CDES 8:GD, ETHER

CM 3

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 4

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 5

CRN 75-56-9 CMF C3 H6 O



CM 6

CRN 75-21-8 CMF C2 H4 O



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FILE COVERS 1907 - 12 Dec 2006 VOL 145 ISS 25 FILE LAST UPDATED: 11 Dec 2006 (20061211/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> => d 172 bib abs hitstr retable tot

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L72 ANSWER 1 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
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2004:857643 HCAPLUS AN

DN 141:350865

- ΤI Mixtures of polyalkoxylated trimethylolpropane (meth)acrylates for crosslinked hydrogel manufacturing.
- IN Popp, Andreas; Daniel, Thomas; Schroeder, Juergen; Jaworek, Thomas; Funk, Ruediger; Schwalm, Reinhold; Weismantel, Matthias; Riegel, Ulrich
- PΑ BASF Aktiengesellschaft, Germany
- PCT Int. Appl., 61 pp. SO

CODEN: PIXXD2

DT Patent

LAGerman

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PI		2004087790 2004087790 2004087790			A2		20041014 20041216											
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EP 1613685
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                                 20060328
                                             BR 2004-9007
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                          T2
                                 20061026
                                             JP 2006-504980
                                                                     20040402
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                          A1
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                                             US 2005-551630
                                                                     20051104
PRAI DE 2003-10315345
                          Α
                                 20030403
     DE 2003-10315669
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     DE 2002-10225943
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                                 20020611
                                           <--
     WO 2003-EP305953
                          Α
                                 20030606
                          W
     WO 2004-EP3551
                                 20040402
OS
    MARPAT 141:350865
GΙ
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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB A mixture of  $\geq 2$  polyalkoxylated trimethylolpropane (meth)acrylates I, II, III (AO1, AO2 and AO3 = EO, PO or/and BO, EO = OCH2CH2, PO = OCH2CHCH3 or OCH(CH3)CH2, BO = OCH2CHEt or OCH(Et)CH2, p1 + p2 + p3 = 28 - 75, n1 + n2 + n3 = 28 - 60, m1 + m2 + m3 = 4 - 13, R1, R2 and R3 = H or CH3) prepared by reacting a mixture of alkoxylated trimethylolpropanes with (meth)acrylic acid in the presence of  $\geq 1$  esterification catalyst and  $\geq 1$ 

polymerization inhibitor is used as crosslinking agent for manufacture of a swellable

crosslinked hydrogel (superabsorbing polymer), as raw material for paints, as additives to cement and for polymer dispersion and polyacrylates manufacture Hydrogel manufacture comprises steps of (a) radical polymerization of an ester exture

with (meth)acrylic acid optionally in the presence of monoethylenically unsatd. compds., hydrophilic monomers (such as sodium acrylate) and radical initiators, (b) drying and (c) milling of the resulting mixture This, mixing 1427 weight parts of ethoxylated and propoxylated trimethylolpropane, 216 weight parts of acrylic acid, 5 weight parts of H2SO4

345 weight parts of methylcyclohexane, adding 3 weight parts of hydroquinone monomethyl ether, 1 weight part of triphenylphosphite, 1 weight part of hypophosphoric acid gave (after removing an azeotropic water) a polymer having viscosity 330 mPa s, used as a crosslinking agent for acrylic acid and sodium acrylate for swellable hydrogel manufacturing 824950-59-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(crosslinked hydrogel; mixture of polyalkoxylated trimethylolpropane (meth)acrylates for swellable crosslinked hydrogel (superabsorbing polymer) manufacture)

RN 824950-59-6 HCAPLUS

CN 2-Propenoic acid, polymer with methyloxirane diblock polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

in

IT

CRN 7446-81-3 CMF C3 H4 O2 . Na

Na

CM 2

CRN 79-10-7 CMF C3 H4 O2

CM 3

CRN 824950-31-4 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O) x . 3 C3 H4 O2

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 77-99-6 CMF C6 H14 O3

CM 6

CRN 697765-47-2

CMF (C3 H6 O . C2 H4 O) $\times$ 

CCI PMS

CRN 75-56-9 CMF C3 H6 O



CM 8

CRN 75-21-8 CMF C2 H4 O

riangle

## IT 824950-31-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(polyalkoxylated trimethylolpropane (meth)acrylates; mixture of polyalkoxylated trimethylolpropane (meth)acrylates for swellable crosslinked hydrogel (superabsorbing polymer) manufacture)

RN 824950-31-4 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

```
CRN
          697765-47-2
     CMF
          (C3 H6 O . C2 H4 O) x
     CCI
          PMS
          CM
               75-56-9
          CRN
          CMF
              C3 H6 O
     СНЗ
          CM
               5
          CRN
              75-21-8
          CMF
              C2 H4 O
    ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
     2004:857543 HCAPLUS
AN
DN
     141:350828
ΤI
     Mixtures of at least two (meth)acrylates having at least two double bonds
     for manufacture of hydrogels
ΙN
     Riegel, Ulrich; Daniel, Thomas; Hermeling, Dieter;
     Elliott, Mark; Schwalm, Reinhold
PΑ
     BASF Aktiengesellschaft, Germany
SO
     PCT Int. Appl., 84 pp.
     CODEN: PIXXD2
DΤ
     Patent
LA
     German
FAN.CNT 8
     PATENT NO.
                        KIND
                                DATE
                                           APPLICATION NO.
                                                                   DATE
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             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
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             SK, TR, BF, BJ, CF, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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             FI, FR, GB,
                         GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
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                                             DE 2003-10358372
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     EP 1613583
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     BR 2004008969
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                                 20061019
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PRAI DE 2003-10315336
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                          Α
                                 20020611
     WO 2004-EP3348
                          W
                                 20040330
OS
     MARPAT 141:350828
AΒ
     Title mixts. for use as crosslinkers in the manufacture of superabsorbent
     hydrogels with high hydrolysis resistance and particle formation during
     manufacture have GFV 200-600 g/mol double bonds, with GFV = \Sigma ni=1 =
     \alphaiMWi/Zi [\sumni=1\alphai = 1, \alphai = mol fraction of compound
     (i) in the mixture, n [number of compds. in mixture] ≥ 2, Zi = number of
     double bonds in compound (i), MWi = mol. weight of compound (i)]. A typical
     hydrogel was manufactured by radical polymerization of 220 g acrylic acid,
2201 g
     37.3% aqueous Na acrylate solution, and 5.1 g mixture containing 69.3% 30:5
ethylene
     oxide-propylene oxide copolymer trimethylolpropane ether triacrylate and
     30.7% Laromer TPGDA.
ΙT
     117989-76-1P
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
     (Reactant or reagent)
```

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O) x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



TT 774577-49-0P, Acrylic acid-ethylene oxide-propylene oxide
copolymer trimethylolpropane ether triacrylate-sodium acrylate copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
 (mixts. of at least two (meth)acrylates having at least two double
 bonds for crosslinkers for manufacture of hydrogels)
RN 774577-49-0 HCAPLUS

2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CN

CRN 7446-81-3 CMF C3 H4 O2 . Na

Na

CM 2

CRN, 79-10-7 CMF C3 H4 O2

CM 3

CRN 117989-76-1 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 77-99-6

CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 6

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 7

CRN 75-56-9 CMF C3 H6 O



CM 8

CRN 75-21-8 CMF C2 H4 O



L72 ANSWER 3 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:20133 HCAPLUS

DN 140:102019

TI Photosensitive polymer compositions with good plating resistance and strippability and photosensitive elements containing them

IN Sawabe, Masaru; Ishimaru, Toshiaki

PA Hitachi Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

F	AN.CNT 2	:					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
P:	I JP 2004004635	A2	20040108	JP 2003-78279	20030320 <		
	JP 3795872	B2	20060712				
	JP 2002328469	A2	20021115	JP 2002-18913	19930215 <		
	JP 3437179	В2	20030818				
Pl	RAI JP 2002-18913	A3	19930215	<	•		
	JP 1993-25691	A3	19930215	<			

jan delaval - 12 december 2006

The compns., useful as plating resists for printed circuit boards, contain ethylenically unsatd. compds. having  $\geq 3$  unsatd. groups CH2:CR1CO(OR2)m(OR3)nO (R1 = H, Me; R2, R3 = ethylene, propylene; R2  $\neq$  R3; m, n  $\geq 1$ ). The photosensitive elements have the photosensitive polymer composition layers on support films.

IT 117989-76-1 161278-82-6

RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive polymer compns. containing ethoxy- and propoxy-containing unsatd. compds. with good strippability for plating resists)

RN 117989-76-1 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM. 2

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O) x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CRN 75-21-8 CMF C2 H4 O



RN 161278-82-6 HCAPLUS
CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2(hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate) (9CI)
(CA INDEX NAME)

CM 1

CRN 79-41-4 CMF C4 H6 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O)x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8

CMF C2 H4 O



```
ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
L72
AN
     2003:991565 HCAPLUS
DN
     140:43143
ΤI
     Acrylic esters of alkoxylated trimethylolpropane useful in production of
     hydrogels
ΙN
     Popp, Andreas; Daniel, Thomas; Schroeder,
     Juergen; Jaworek, Thomas; Funk, Ruediger;
     Schwalm, Reinhold; Weismantel, Matthias; Riegel,
    Ulrich
PΑ
    BASF Aktiengesellschaft, Germany
SO
     PCT Int. Appl., 65 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     German
FAN.CNT 8
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
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ΡI
    WO 2003104302
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                                            WO 2.003-EP6054
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             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
            TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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$$\begin{array}{c} \text{R}^{3} \\ \text{H}_{2}\text{C} = \overset{\text{R}^{3}}{\text{C}} - \text{CO} - (\text{EO})_{\overline{n_{3}}} (\text{PO})_{\overline{m_{3}}} \text{O} & \\ \text{O} - (\text{PO})_{\overline{m_{1}}} (\text{EO})_{\overline{n_{1}}} \text{CO} - \overset{\text{R}^{1}}{\text{C}} = \text{CH}_{2} \\ \text{O} - (\text{PO})_{\overline{m_{2}}} (\text{EO})_{\overline{n_{2}}} \text{CO} - \overset{\text{C}}{\text{C}} = \text{CH}_{2} \\ \text{R}^{2} \end{array}$$

AΒ Acrylic and/or methacrylic esters of alkoxylated trimethylolpropane have the general formula (I), where EO is -OCH2CH2-, PO independently represents -OCH2CH(CH3) - or -OCH(CH3)CH2-; n1, n2, n3 are independently 4, 5 or 6; the total of n1, n2 and n3 equals to 14, 15 or 16; m1, m2, m3 are independently 1, 2 or 3; the total of m1, m2 and m3 equals to 4, 5 or 6; and R1, R2 and R3 are independently H or CH3. The esters can be used as crosslinking agents in production of hydrogels, or as components in cement additive compns. or in production of polymer dispersions and lacquers. Thus, an alkoxylated trimethylolpropane was produced by reacting trimethylolpropane (77) in water in the presence of KOH (0.5) with propylene oxide (167) at 120-130°, followed by adding and reacting with ethylene oxide (379 g) at 145-155°. The alkoxylated trimethylolpropane (887) was mixed with acrylic acid (216) and esterified in the presence of H2SO4 (5 parts) and polymerization inhibitors. The obtained alkoxylated trimethylolpropane triacrylate was used as a crosslinking agent in radical polymerization with acrylic acid and sodium acrylate.

Ι

IT 150604-34-5P

RL: IMF (Industrial manufacture); PREP (Preparation)
(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 150604-34-5 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate), block (9CI) (CA INDEX NAME)

CM 1

CRN 79-41-4 CMF C4 H6 O2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH$_{2}$-OH} \\ \text{HO-CH$_{2}$-C-Et} \\ \text{CH$_{2}$-OH} \end{array}$$

CM 3

CRN 106392-12-5 CMF (C3 H6 O . C2 H4 O)x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 .H4 O



IT 633314-15-5P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 633314-15-5 HCAPLUS

CN 2-Propenoic acid, polymer with methyloxirane block polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3 CMF C3 H4 O2 . Na

· • Na

CM 2

CRN 79-10-7 CMF C3 H4 O2

CM 3

CRN 633314-14-4 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 4

CRN 79-10-7 CMF C3 H4 O2

CM 5

CRN 77-99-6 CMF C6 H14 O3

CM 6

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

> 7 CM

CRN 75-56-9 C3 H6 O CMF

CH3

8 CM

CRN 75-21-8 CMF C2 H4 O

ΙT 633314-14-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 633314-14-4 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

2 CM

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ \mid \\ \text{HO-CH}_2-\text{C-Et} \\ \mid \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



## RETABLE

Referenced Author (RAU)	Year   VOL    (RPY) (RVL)	(/	File
	=+=====+	·=====+=======	======+========
Basf Corp	2001	WO 0156625 A	HCAPLUS
Christensen, S	2001	WO 0145758 A	HCAPLUS
Gartner, H	1996	US 5506324 A	HCAPLUS
Kushi, K	1994	US 5356754 A	HCAPLUS

L72 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:991563 HCAPLUS

DN 140:28395

TI Acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels

IN Popp, Andreas; Daniel, Thomas; Schroeder,
 Juergen; Jaworek, Thomas; Funk, Ruediger;
 Schwalm, Reinhold; Weismantel, Matthias; Riegel,
 Ulrich

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 8

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GΙ
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$$\begin{array}{c} \text{CH}_2 \\ \text{R}_3 \end{array} \\ \begin{array}{c} \text{(AO)}_{p_3} \\ \text{(AO)}_{p_2} \\ \text{(AO)}_{p_2} \end{array} \\ \begin{array}{c} \text{CH}_2 \\ \text{CH}_2 \\ \text{CH}_2 \\ \text{CH}_2 \\ \text{I} \end{array}$$

AB Acrylic and/or methacrylic esters of alkoxylated trimethylolpropane have the general formula (I), where each AO independently represents EO, PO or BO, EO being -OCH2CH2-, PO being -OCH2CH(CH3)- or -OCH(CH3)CH2-, BO being -OCH2CH(CH2CH3)- or -OCH(CH2CH3)CH2-; the total of p1, p2 and p3 equals to an integer from 28 to 75; and R1, R2 and R3 are independently H or CH3. The esters can be used as crosslinking agents in production of hydrogels, or as components in cement additive compns. or in production of polymer dispersions and lacquers. Thus, an alkoxylated trimethylolpropane was produced by reacting trimethylolpropane (77) in water in the presence of KOH (0.5) with ethylene oxide (759) at 145-155°, followed by adding and reacting with propylene oxide (167 g) at 120-130°. The

alkoxylated trimethylolpropane (1,427) was mixed with acrylic acid (216) and esterified in the presence of H2SO4 (5 parts) and polymerization inhibitors.

The obtained alkoxylated trimethylolpropane triacrylate was used as a crosslinking agent in radical polymerization with acrylic acid and sodium acrylate.

IT 150604-34-5P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 150604-34-5 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate), block (9CI) (CA INDEX NAME)

CM 1

CRN 79-41-4 CMF C4 H6 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 106392-12-5 CMF (C3 H6 O . 0

CMF (C3 H6 O . C2 H4 O)  $\times$ 

CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O

/^\

IT 633314-15-5P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic esters of alkoxylated trimethylolpropane useful in production of

hydrogels)

RN 633314-15-5 HCAPLUS CN 2-Propenoic acid, pol

2-Propenoic acid, polymer with methyloxirane block polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) tri-2-propenoate, and sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3 CMF C3 H4 O2 . Na

0 ||-HO-C-CH==CH2

Na

CM 2

CRN 79-10-7 CMF C3 H4 O2

0 || но- с- сн== сн<sub>2</sub>

CM 3

CRN 633314-14-4 CMF  $C6\ H14\ O3$  . 3 (C3 H6 O . C2 H4 O)x . 3 C3 H4 O2

CM 4

CRN 79-10-7 CMF C3 H4 O2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 6

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 7

CRN 75-56-9 CMF C3 H6 O



CM 8

CRN 75-21-8 CMF C2 H4 O



CN

IT 633314-14-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(acrylic esters of alkoxylated trimethylolpropane useful in production of hydrogels)

RN 633314-14-4 HCAPLUS

Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

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CRN 106392-12-5 CMF (C3 H6 O . C2 H4 O)x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



## RETABLE

Referenced Author (RAU)	Year   VOL  (RPY) (RVL)	(RPG)	eferenced Work (RWK)	Referenced   File
Abraham, B Basf Aq	1968    1988	US	3380831 A 0264841 A	     HCAPLUS
Dai Ichi Kogyo Seiyaku	1999	EP	0923147 A	HCAPLUS

Gartner, H	1996	1	1	US	5506324	A	HCAPLUS
Hartmann, H	1997	1	1	US	5661220	Α	HCAPLUS
Kushi, K	1994	1	1	US	5356754	Α	HCAPLUS
Matsushita Electric	Ind 1997	1	1	EP	0777287	A	HCAPLUS
Ritter, W	1997	ļ	1	JUS	5648518	A	HCAPLUS

L72 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:418045 HCAPLUS

DN 133:65978

TI Photosensitive resin composition, photosensitive element using same, resist pattern formation, and production of printed circuit board

IN Ichikawa, Tatsuya; Ohashi, Takeshi

PA Hitachi Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_ PΙ JP 2000171971 A2 20000623 JP 1998-345349 19981204 <--PRAI JP 1998-345349 19981204 <--GI

$$H_{2}C = CCO (OX)_{pO} \xrightarrow{Z_{5}^{1}} CH_{3} \xrightarrow{Z_{5}^{2}} O (YO)_{q}COC = CH_{2}$$

AΒ The title resin composition contains (a) a CO2H-containing binder polymer, (b) photopolymg. compds. having ≥1 polymerizable ethylenic unsatd. bond in their mols. including compds. MeCH2[CH2CH2O(AO)m1(BO)n1COCR1:CH2][CCH2O (AO) m2 (BO) n2COCR2:CH2] [CH2CH2O (AO) m3 (BO) n3COCR 3:CH2] [R1-3 = H or Me; A, B = C2-6 alkylene (A  $\neq$  B); m1 + m2 + m3 = 6-45; n1 + n2 + n3 = 3-45] and I [R4, R5 = H or Me; X, Y = C2-6 alkylene; Z1, Z2 = halo, H, C1-20 alkyl, C3-10 cycloalkyl, amino- or C1-20 alkyl-substituted aryl, amino, SH, C1-10 alkylmercapto, C1-10 alkyl-containing carboxyalkyl, C1- 20 alkoxy, heterocycle-containing group; p + q = 8-40; s, t = 1-4] as essential components, and (c) a photopolymn. initiator. The photosensitive element comprises a support laminated with the composition and an optional protective film and is laminated on a substrate for forming a circuit while the protective film is being peeled off, if necessary, imagewise exposed to activating ray to photo-cure the exposed areas, and developed to remove the unexposed areas to form a resist pattern. The substrate on which a resist pattern has been formed by the above process is subjected to etching or plating to give a printed circuit board. The composition shows high photosensitivity and provides high resolution resist patterns with high plating resistance, adhesivity, mech. strength, and flexibility.

IT 117989-76-1

RL: TEM (Technical or engineered material use); USES (Uses) (O 565; photoresist composition containing polymer with carboxy group, acrylate

compound, and photopolymn. initiator)

RN 117989-76-1 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-

(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O) x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



L72 ANSWER 7 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN AN 2000:127557 HCAPLUS

```
DN 132:152313
TI Extraction
```

Extraction procedure for the production of pure esters of  $\alpha$ ,  $\beta$ -ethylenically unsaturated carboxylic acids

IN Paulus, Wolfgang; Bernhard, Ludwig; Johansson, Astrid Carina; Haas, Guenter; Geisendoerfer, Matthias; Beck, Erich; Leube, Hartmann; Kuse, Reinhold; Jaeger, Ulrich

PA BASF A.-G., Germany

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	DE 19836788	A1	20000224	DE 1998-19836788	19980813 <		
	DE 19836788	B4	20060928				
PRAI	DE 1998-19836788		19980813	<	•		

AB A procedure for the production of pure, water-insol. esters of  $\alpha, \beta$ -ethylenically unsatd. carboxylic acids (e.g., acrylic acid esters of ethoxylated propoxylated trimethylolpropane) from its mixts. which are contaminated with unconverted carboxylic acid(s) and/or acid group-containing catalysts comprises: (A) conducting a liquid-liquid extraction against

an aqueous phase containing the esters using a base; and (B) the aqueous base with the  $\,$ 

impurities contained in it are phase separated

IT 117989-76-1P

RL: PUR (Purification or recovery); PREP (Preparation)

(extraction procedure for the production of pure esters of ethylenically unsatd.

carboxylic acids)

RN 117989-76-1 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (9CI) (CA INDEXNAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$CH_2-OH$$
 $HO-CH_2-C-Et$ 
 $CH_2-OH$ 

CM 3

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



## RETABLE

Referenced Author (RAU)	Year   VOL  (RPY) (RVL	(RPG)		Referenced   File .
Anon			EP 0618187 A1	HCAPLUS
Anon	i i	İ	JP 62106052 A	HCAPLUS
Anon		1	JP 62106056 A	HCAPLUS
Anon		1	JP 62106057 A	HCAPLUS
Anon		1	JP 63174951 A	HCAPLUS
Anon '		1	JP 63275544 A	HCAPLUS
Ullmann	1985  A1	168	Encyclopedia of Ind	du I

L72 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:322528 HCAPLUS

DN 131:37785

TI Photosensitive resin composition and photosensitive element using same

IN Ichikawa, Tatsuya; Endo, Masaki

PA Hitachi Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE.	APPLICATION NO.	DATE
ΡI	JP 11133595	A2	19990521	JP 1997-294510	19971027 <
PRAT	JP 1997-294510		19971027	<	

AB The title resin composition comprises (a) a CO2H-containing binder polymer,

photopolymn. initiator, and (c) photopolymg. unsatd. compds. having

 $\geq 1$  polymerizable ethylenic unsatd. bond in their mol. including 5-70 weight% of compound EtC[CH2O(AO)m1(BO)n1COCR1:CH2][CH2O(AO)m2(BO)n2COCR2:CH2][CH2O(AO)m3(BO)n3COCR3:CH2] (R1- 3 = H or Me; A, B = CHMeCH2, CH2CHMe, CH2CH2, A  $\neq$  B; m1 + m2 + m3 = 6-45; n1 + n2 + n3 = 3-45). The photosensitive element comprises a support coated with the composition The composition useful as a resist suited for use in production of printed circuit boards shows improved plating resistance and peeling properties. 117989-76-1

RL: TEM (Technical or engineered material use); USES (Uses) (photoresist containing binder polymer with carboxyl group, photopolymn. initiator, and ethylenic unsaturate photopolymerizable compound) 117989-76-1 HCAPLUS

RN 117989-76-1 HCAPLUS
CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1

IT

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O) x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



19951128 <--

19961126 <--

CM 5

CRN 75-21-8 CMF C2 H4 O



```
L72 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
    1997:479241 HCAPLUS
DN
    127:97521
    Flat non-aqueous electrolyte secondary battery with polymer coated anode
ΤI
ΙN
    Matsui, Tooru; Takeyama, Kenichi
PA
    Matsushita Electric Industrial Co., Ltd., Japan
SO
    Eur. Pat. Appl., 13 pp.
    CODEN: EPXXDW
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                       KIND
                              DATE
                                         APPLICATION NO.
                                                            DATE
    _____
                       ____
                              -----
ΡI
    EP 777287
                       A2
                              19970604 EP 1996-117858
                                                               19961107 <--
    EP 777287
                       A3
                              19970716
    EP 777287
                       В1
                              20000202
        R: BE, DE, FR, GB, IT
```

19970606

20030407

19980630

PRAI JP 1995-309381 A 19951128 <-AB The flat non-aqueous electrolyte secondary battery has an anode containing an alkali metal (e.g., lithium) active material, where the anode is coated with a polymer film containing dissociated alkali metal ions, supporting a gel electrolyte. The polymer film is made of a polymeric monomer which has mol. weight/terminal polymer functional group number of ≤500, and a alkoxylated polyol acrylate structure where the alkoxylated chains are formed by random or block polymerization of ethylene oxide and/or propylene oxide.

## IT 117989-76-1

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(flat non-aqueous electrolyte secondary alkali metal battery with polymer coated anode)

JP 1995-309381

US 1996-756778

RN 117989-76-1 HCAPLUS

JP 09147920

JP 3394125

US 5773166

A2

В2

Α

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

O || HO-C-CH==CH2 CM 2 CRN 77-99-6

CMF C6 H14 O3

CM 3

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)  $\times$ 

CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



L72 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:369593 HCAPLUS

DN 126:344211

TI Continuous process for the preparation of highly stable, finely divided, low viscosity polymer polyols of small average particle size

IN Kratz, Mark R.; Dietrich, Manfred; Heinemann, Torsten; Jacobs, Gundolf; Sanders, Josef; Woynar, Helmut

PA Bayer A.-G., Germany

SO Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

```
PΙ
     EP 768324
                           Α1
                                 19970416
                                              EP 1995-115940
                                                                      19951010 <--
     EP 768324
                           B1
                                 20000816
         R: BE, DE, ES, FR, GB, IT, NL
     ES 2148397
                           Т3
                                 20001016
                                              ES 1995-115940
                                                                      19951010 <--
     US 5814699
                           Α
                                 19980929
                                              US 1996-723659
                                                                      19961003 <--
     CA 2187125
                           AA
                                 19970411
                                              CA 1996-2187125
                                                                      19961004 <--
     JP 09124750
                           A2
                                 19970513
                                              JP 1996-285938
                                                                      19961009 <--
     BR 9605032
                           Α
                                 19980630
                                              BR 1996-5032
                                                                      19961009 <--
     CN 1160061
                           Α
                                 19970924
                                              CN 1996-112759
                                                                      19961010 <--
     CN 1069654
                           В
                                 20010815
PRAI EP 1995-115940
                           Α
                                 19951010
                                           <--
     MARPAT 126:344211
OS
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AB Highly stable, finely divided, low viscosity polymer polyols of small average particle size, useful for preparation of polyurethane foams, are manufacture by 1st

reacting (1) a mixture of styrene and acrylonitrile (I) in a mixture of (2) a polyoxyalkylene polyether polyol and (3) a macromer in the presence of (4) a free radical initiator, (5) a solvent having moderate chain transfer activity and optionally (6) a reaction moderator at a temperature of  $\geq 100^{\circ}$  to give a seed with macromer content  $\geq 12\%$  with

respect to the polyol mixture and the solids content 15-30%, and then using the seed in further stirred-tank reactors for a similar polymerization of styrene

with I but optionally in the presence of a macromer. A typical macromer was manufactured by reaction of ethylene oxide-propylene oxide copolymer trimethylolpropane ether with maleic anhydride and subsequently with ethylene oxide.

IT 118800-30-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(macromer; continuous manufacture of highly stable, finely divided, low viscosity polymer polyols of small average particle size from macromers for polyurethane foams)

RN 118800-30-9 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM

75-56-9 CRN CMF C3 H6 O



CM

CRN 75-21-8 CMF C2 H4 O



L72 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

ΑN 1996:580576 HCAPLUS

DN

TΙ Low viscosity polymer polyols, a process for their production, and manufacture of polyurethane from materials

Sanders, Josef; Kratz, Mark; Dietrich, Manfred; Heinemann, Torsten; IN Woynar, Helmut; Jacobs, Gundolf; Scholz, Uwe

PΑ Bayer Aktiengesellschaft, Germany

so U.S., 10 pp.

CODEN: USXXAM

DTPatent

English

FAN CNT 2

PAN.CNI Z						
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI US 5554662	A	19960910	US 1995-470695	19950606 <		
PRAI DE 1995-19508578	Α	19950310	<			
OS MARPAT 125:302320						
GI						

AB Stable, agglomerate-free, low viscosity graft copolymer dispersions are produced by radical polymerization of ethylenically unsatd. monomers in the presence of a base polyol, a macromer, an enol ether chain-transfer agent A=CHOR (A is I; R is a C1-18 aliphatic hydrocarbon radical, a C5-10 cycloaliph. hydrocarbon radical, or a (substituted) benzyl radical; R' is H or a C1-8 aliphatic hydrocarbon radical), and optionally, an organic solvent. Acrylonitrile and styrene were polymerized with ethylene trimethylolpropane-initiated oxide-propylene oxide copolymer acrylate macromer in the presence of cyclohex-3-enylidene-cyclohexyl ether to give a graft copolymer which was used in manufacture of a polyurethane foam.

IT '118800-30-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(low viscosity polymer polyols, a process for their production, and  $\mbox{\tt manufacture}$ 

of polyurethane from materials)

RN 118800-30-9 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate (9CI) (CA INDEX NAME)

. CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O) x CCI PMS

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



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L72 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
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AN 1995:235144 HCAPLUS

DN 122:147331

TI Photosensitive resin composition and photosensitive element

IN Sawabe, Masaru; Ishimaru, Toshiaki

PA Hitachi Chemical Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE		
ΡI	JP 06242603	A2	19940902	JP 1993-25691	19930215 <		
	JP 2002328469 ·	A2	20021115	JP 2002-18913	19930215 <		
	JP 3437179	B2	20030818	•	•		
PRAI	JP 1993-25691	Aβ	19930215	<			

AB The composition comprises (1) an ethylenic unsatd. compound having  $\geq 3$  unsatd. groups O(R3O)n(R2O)nCOCR1:CH2 (R1 = H, Me; R2-3 = ethylene, propylene, R2  $\neq$  R3; m, n  $\geq 1$ ), (2) an organic halo compound, (3) a film-forming polymer, and (4) photopolymn. initiator that generates radicals by irradiation Photosensitive elements comprising substrates and the photosensitive composition layer are claimed. The composition shows good flexibility, releasing property, and plating resistance, and prevents generation of scum.

IT 117989-76-1 161278-82-6

RL: TEM (Technical or engineered material use); USES (Uses) (photoresist containing propoxy ethoxy acrylate and organic halo compound)

RN 117989-76-1 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O)x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O

CH3

CM 5

CRN 75-21-8 CMF C2 H4 O



RN 161278-82-6 HCAPLUS CN Oxirane, methyl-, pol

Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



L72 ANSWER 13 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:227405 HCAPLUS

DN 122:92840

TI Crosslinking curable resin composition

IN Kushi, Kenji; Inukai, Kenichi; Iseki, Takayuki; Koyanagi, Seiya

PA Mitsubishi Rayon Co., Ltd., Japan

SO U.S., 13 pp.

CODEN: USXXAM

DT Patent

LA English

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FAN.CNT 1
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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 5356754	Α	19941018	US 1992-950500	19920925 <
PRAI	US 1992-950500		19920925	<	

AB A photopolymerizable or radiation polymerizable alkaline developing crosslinking curable resin composition comprises: (a) 5-30 parts by weight of

at

least one compound possessing in one mol. on the average 1.5 or more (meth)acryloyloxy groups, which is obtained by reacting (meth)acrylic acid with a reaction product formed by adding, to a polyat. alc. possessing 3 or more OH groups in one mol., an alkylene oxide containing propylene oxide in an amount of 67% molar or greater in an amount of 5-12 mol per mol of OH group in the aforementioned polyat. alc., (b) 5-30 parts by weight of at least one crosslinkable monomer other than that stated above in (a) , possessing in one mol. 2 or more ethylenically unsatd. groups, (c) 45-75 parts by weight of a thermoplastic polymer for use as a binder, the thermoplastic polymer in turn being formed of 15-35 weight% of at least one  $\alpha$ ,  $\beta$ -unsatd. carboxyl group containing a monomer having 3-15 carbon atoms, and 65-85 weight

ક્ર

of another copolymerizable monomer, and (d) 0-10 parts by weight of a photopolymn. initiator. The composition possesses superior antiplating properties and a short stripping period, in which the stripped plate is not easily dissolved in the stripping fluid.

IT 118800-30-9P

RL: POF (Polymer in formulation); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(crosslinking curable resin composition)

RN 118800-30-9 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN 9003-11-6
CMF (C3 H6 O . C2 H4 O) x
CCI PMS

CM 4

CRN 75-56-9
CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



```
L72 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ΑN
     1994:334936 HCAPLUS
DN
     120:334936
TI
     Novel (meth)acrylate for photoresists
IN
    Myazaki, Seiji; Myoshi, Takanori; Sonobe, Hiroshi; Koyanagi, Seiya
PA
    Mitsubishi Rayon Co, Japan
SO
     Jpn. Kokai Tokkyo Koho, 5 pp.
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
FAN.CNT 1
     PATENT NO.
                        KIND
                                DATE
                                           APPLICATION NO.
                                                                   DATE
     -----
                         ----
                               _____
                                            -----
PT
     JP 05125015
                         Α2
                                19930521
                                            JP 1991-289960
                                                                  19911106 <--
PRAI JP 1991-289960
                                19911106 <--
    The claimed acrylate is obtained by forming an adduct of alkylene oxides
     to a polyhydric alc., then esterifying; the polyhydric alc. containing
     \geq3 OH in 1 mol., the alkylene oxide being propylene oxide or its
    mixture with ethylene oxide (propylene oxide \geq67 mol%), the addition
     amount of alkylene oxides to polyhydric alc. being average 5-12 mol/mol(OH),
and
     there existing average ≥1.5 (meth)acrylate ester group in 1 mol..
    (meth)acrylate shows superior plating-resistance, easy peeling off
    property and low irritation to skin.
ΙT
     118800-30-9P
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and use of, as photoresist composition)
RN
     118800-30-9 HCAPLUS
CN
    Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-
     (hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate (9CI) (CA INDEX NAME)
    CM
         1
```

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O

CH3

CM 5

CRN 75-21-8 CMF C2 H4 O

/^\

L72 ANSWER 15 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1993:683964 HCAPLUS

DN 119:283964

TI Solid electrolytes and their preparation

IN Kono, Michiyuki; Motogami, Kenji; Mori, Shigeo

PA Daiichi Kogyo Seiyaku Co., Ltd., Japan

SO Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW DΤ Patent LA English FAN.CNT 1 DATE PATENT NO. KIND APPLICATION NO. DATE -----------------------PΙ EP 537930 Α1 19930421 EP 1992-309063 19921005 <--EP 537930 В1 19950524 R: DE, FR, GB, NL JP 1991-296173 JP 05109311 Α2 19930430 19911015 <--JP 2987474 В2 19991206 US 5356553 Α 19941018 US 1992-957258 19921006 <--CA 2080047 AA 19930416 CA 1992-2080047 19921007 <--CA 2080047 С 19990302 PRAI JP 1991-296173 Α 19911015 <--GΙ

— 
$$(CH_2CH_2O)_m$$
 —  $(CH_2CHR'O)_n$  —  $C-C=CH_2$  I

AB The title electrolytes are prepared by dissolving a solvent and an electrolyte salt in a trifunctional terminal acryloyl-modified alkylene oxide polymer containing a polymer chain described by the general formula I (R' = a low mol. weight alkyl group; R'' = H or Me; m, or n = 0 or an integer  $\geq 1$ ; and m + n  $\geq 35$ ) and crosslinking it. The electrolytes are ion conductors and applications in cells, electrochromic displays, and sensors are indicated.

IT 115165-81-6P 118800-30-9P

RL: PREP (Preparation)

(preparation of, for electrolytes)

RN 115165-81-6 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 79-41-4 CMF C4 H6 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

4

CRN 75-56-9 CMF C3 H6 O

CH3

CM 5

CRN 75-21-8

CMF C2 H4 O

 $\stackrel{\circ}{\triangle}$ 

RN 118800-30-9 HCAPLUS
CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2(hydroxymethyl)-1,3-propanediol (3:1), 2-propenoate (9CI) (CA INDEX NAME)
CM 1

CRN 79-10-7 CMF C3 H4 O2

O || HO-C-CH==CH<sub>2</sub>

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$CH_2-OH$$
 $HO-CH_2-C-Et$ 
 $CH_2-OH$ 

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)  $\times$ 

CCI PMS

> CM4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21**-**8 CMF C2 H4 O



AN

1993:675100 HCAPLUS DN 119:275100 ΤI Batteries with solid polymer electrolytes ΙN Kono, Michiyuki; Mori, Shigeo; Takeda, Kazunari; Izuti, Shyuiti PΑ Daiichi Kogyo Seiyaku Co., Ltd., Japan; Yuasa Corp. SO PCT Int. Appl., 29 pp. CODEN: PIXXD2 DT Patent

L72 ANSWER 16 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

Japanese LA

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE -----\_\_\_\_ -----------РΤ WO 9314529 Α1 19930722 WO 1993-JP64 19930120 <--W: CA, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE JP 05198303 Α2 19930806 JP 1992-31451 19920121 <---EP 576686 19940105 A1 EP 1993-902505 19930120 <--EP 576686 В1 20011010 R: DE, FR, GB JP 07006787 A2 19950110 JP 1993-26269 19930120 <--JP 3290229 B2 20020610

CA 2106205 С 19991214 CA 1993-2106205 19930120 <--US 5436090 US 1993-119214 Α 19950725 19930921 <--PRAI .JP 1992-31451 · A 19920121 <--WO 1993-JP64 W 19930120 <--

AB The batteries use electrolytes obtained by crosslinking a mixture containing a trifunctional group polymer, an electrolyte salt, and a solvent by energy beam irradiation and/or heating; where the polymer contains 3 functional polymer chains of (CH2CH2O)m(CH2CRHO)nCOCR1:CH2 (R = C1-6 alkyl group, R1 = H or Me, m + n ≥35, and m or n may be 0), and the solvent is used at 220-950% the weight of the polymer. The batteries may use the electrolyte as separators and cathodes containing the electrolyte, or use anodes containing the electrolyte.

IT 150604-34-5

RL: USES (Uses)

(crosslinked, electrolyte containing lithium salts and solvents and, for batteries)

RN 150604-34-5 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2- (hydroxymethyl)-1,3-propanediol (3:1), tris(2-methyl-2-propenoate), block (9CI) (CA INDEX NAME)

CM 1

CRN 79-41-4 CMF C4 H6 O2

CM 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 3

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O)  $\times$ 

CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O CH<sub>3</sub>

CM 5

CRN 75-21-8 CMF C2 H4 O

L72 ANSWER 17 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

ΑN 1993:451269 HCAPLUS

DN 119:51269

TΙ Prevention of discoloration of unfixed dyes by combustion exhaust gases in dyeing or printing fabrics with reactive dyes

IN Takekoshi, Shoji; Hashimoto, Akira; Tao, Kazuo

PA Meisei Chemical Works, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

Japanese LA

FAN.CNT 1

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE		
PI	JP 04333676 JP 2549583	A2 B2	19921120 19961030	JP 1991-135446	19910510 <		
PRAI	JP 1991-135446	50	19910510	<			

In the title process, cellulosic fabrics are dyed or printed with compns. containing CH2:CRCO2(CH2CH2O)s(CH2CHMeO)pCOCR:CH2 (R = Me, H; s = 5-20; p = 5-200-10), CH2:CRCO2CH2CH(OH)CH2O(CH2CH2O)s(CH2CHMeO)pCH2CH(OH)CH2CO2CR:CH2, MeCH2C(CH2OX)3 [X = (CH2CH2O)s(CH2CHMeO)pCOCR:CH2], and/or YOCH2C(CH2OX)3 [ Y = CH2:CRCO(CH2CH2O)s(CH2CHMeO)p]. A designed cotton broadcloth was dyed with a liquid containing polyoxyethylene dimethacrylate and Remazole Orange

3R, dried, contacted with nitrogen oxide (g), and heat treated to give a colored fabric without discoloration.

ΙT 117989-76-1

RL: USES (Uses)

(reactive dyeing solns. for cellulosic fabrics., for discoloration prevention)

RN 117989-76-1 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN . 79-10-7 CMF C3 H4 O2

CRN 77-99-6 CMF C6 H14 O3

CM 3

CRN · 9003-11-6

CMF (C3 H6 O . C2 H4 O)  $\times$ 

CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



L72 ANSWER 18 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1993:410401 HCAPLUS

DN 119:10401

TI Resist printing cellulosic fabrics with reactive dyes for sharp patterns

IN Takekoshi, Shoji; Hashimoto, Akira; Tao, Kazuo

PA Meisei Chemical Works, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

```
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
                         ____
                                            -----
                                                                   _____
ΡI
     JP 04343773
                         A2
                                            JP 1991-141093 ·
                                19921130
                                                                   19910515 <--
     JP 2652475
                         B2
                                19970910
PRAI JP 1991-141093
                                19910515
                                         <--
     In the title process, cellulosic fabrics are printed with compns. containing
     sulfurous acid salts, acidic sulfurous acid salts, and/or
    hydroxyalkanesulfonic acid salts as dye resist agents and subsequently
     printed with compns. containing reactive dyes containing vinyl sulfone groups,
and
     polyoxyalkylene (meth)acrylates with a specified structure as hollowing
    preventive agents. A cotton broadcloth was printed with a composition
containing
     Cibacron Red B and 3.0% Na2SO3, subsequently printed with a composition
containing
     Sumifix Brilliant Blue R and 2.0% polyoxyethylene diacrylate, and heat
     treated 8 min at 100^{\circ} to give a resist-printed fabric with a sharp
     pattern.
IT
     117989-76-1
     RL: USES (Uses)
        (resist printing compns. containing, for cotton fabrics, for sharp
        patterns)
RN
     117989-76-1 HCAPLUS
CN
    Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-
     (hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (9CI) (CA INDEX
    NAME)
    CM
         1
    CRN 79-10-7
    CMF C3 H4 O2
   0
HO-C-CH=CH2
         2
    CM
    CRN
         77-99-6
    CMF C6 H14 O3
        СН2-ОН
HO-CH2-C-Et
```

CCI PMS

CMF (C3 H6 O . C2 H4 O) $\times$ 

CRN 75-56-9 CMF C3 H6 O



CM 5

CRN 75-21-8 CMF C2 H4 O



L72 ANSWER 19 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1989:10884 HCAPLUS

DN 110:10884

TI Copolymers from hydrophobic (meth)acrylic acid esters and hydrophilic monomers, method of their preparation, and application as petroleum emulsion breaker

IN Barthold, Klaus; Baur, Richard; Crema, Stefano Carlo; Lasowski, Juergen; Oppenlaender, Knut; Heide, Wilfried

PA BASF A.-G., Fed. Rep. Ger.

SO Ger. Offen., 16 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

T TATA * .	CIVI	4									
	PAT	ENT NO.			KIN	)	DATE	AP	PLICATION NO.	DATE	
						-				 	
ΡI	DE	3635489			A1		19880421	DE	1986-3635489	19861018	<
	NO	8704319			Α		19880419	NO	1987-4319	19871016	<
	NO	171682			В		19930111				
	NO	171682			С		19930421				
	ΕP	264841			A2		19880427	EP	1987-115126	19871016	<
	EΡ	264841			A3		19890712				
	ΕP	264841			В1		19921230				
		R: DE,	FR,	GB,	IT,	NL					
	CA	1309552			A1		19921027	CA	1987-549642	19871019	<
	US	5472617			Α		19951205	US	1993-175935	19931227	
PRAI	DE	1986-363	5489		Α		19861018	<			-
	US	1992-905	130		В2		19920624	<			

AB The copolymers useful as petroleum emulsion breakers are prepared from hydrophobic (meth)acrylic acid esters, their alc. components derived from a mixture of polyglycols and polyglycol ethers, with hydrophilic, ethylenic unsatd. monomers, whereby in copolymers (i) all or substantially all free OH-groups are etherified, esterified, or converted into urethane groups and/or (ii) by esterification the acid is neutralized by amine addition Thus, 893 g acrylic acid ester with ethoxylated-propoxylated trimethylolpropane and 95.8 g acrylic acid, in the presence of 453 mg 2,2'-azobisisobutyronitrile and 460 g xylene, were copolymd. at 80°

for 3 h to obtain a polymer (K-value 13.2, measured as 1% xylene solution), which was then treated with 14.3 g acetic anhydride at 100° for 3 h for end group protection and neutralized with 7.7 g tributylamine for catalytic acid to yield a final product having 23.8 K-value and <1 OH-number IT 115165-81-6D, polymers with (meth)acrylates 117801-95-3 RL: USES (Uses) (petroleum emulsion breaker) RN 115165-81-6 HCAPLUS CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME) CM 1 CRN 79-41-4 CMF C4 H6 O2 CH<sub>2</sub>  $Me-C-CO_2H$ CM 2 CRN 77-99-6 CMF C6 H14 O3 СН2-ОН  $HO-CH_2-C-Et$  $CH_2-OH$ CM3 CRN 106392-12-5 CMF (C3 H6 O . C2 H4 O) x CCI PMS CM 4 75-56**-**9 CRN

CH3

CM 5

CRN 75-21-8 CMF C2 H4 O

CMF C3 H6 O

/^\

RN 117801-95-3 HCAPLUS CN 2-Propenoic acid, po

2-Propenoic acid, polymer with methyloxirane block polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

CM 2

CRN 117742-99-1 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x . x C3 H4 O2

CM 3

CRN 79-10-7 CMF C3 H4 O2

CM 4

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 5

CRN 106392-12-5 CMF (C3 H6 O . C2 H4 O) x CCI PMS CM 6

75-56-9 CRN CMF C3 H6 O



CM 7

CRN 75-21-8 CMF C2 'H4 O



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L72 ANSWER 20 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
    1989:9783 HCAPLUS
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DN 110:9783

TΙ Acrylate-amine adducts for radiation-curable compositions

Weiss, Wolfram; Beck, Erich; Jacobi, Manfred; Richter, Peter IN

PA BASF A.-G., Fed. Rep. Ger.

SO Ger. Offen., 6 pp. CODEN: GWXXBX

DTPatent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
				,	
ΡI	DE 3706355	A1	19880908	DE 1987-3706355	19870227 <
	JP 63227553	A2	19880921	JP 1988-35424	19880219 <
	EP 280222	A2	19880831	EP 1988-102525	19880220 <
	EP 280222	A3	19900704		

R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE PRAI DE 1987-3706355 Α 19870227 <--

Addition products of a primary monoamine and an ester of (meth)acrylic acid and a polyhydric alc. (0.05-0.4 mol NH2/mol double bonds) have good storage stability, cure quickly and completely during irradiation in air, and are useful in coatings and printing inks. Ethanolamine 61, tripropylene glycol diacrylate 840, and BHT 0.9 g were heated at 60° to give a clear, colorless product having viscosity 130 mPa-s (at 23°) before and after 6 wk of storage at  $60^\circ$  in the dark. A mixture of the

product 100, Ph2CO 2, and benzil di-Me ketal 1 g was coated (100  $\mu m)$  on glass and cured in UV light.

ΙT 117989-76-1DP, addition products with primary amines RL: PREP (Preparation)

(preparation of storage-stable, photocurable)

RN 117989-76-1 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1 CRN 79-10-7 CMF C3 H4 O2

CM ' 2

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM · 3

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O) x CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O

СНЗ

CM 5

CRN 75-21-8 CMF C2 H4 O



L72 ANSWER 21 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1979:7044 HCAPLUS.

DN 90:7044

TI Stable suspensions of inorganic filler in organic polyhydroxyl compounds

IN Von Bonin, Wulf

PA Bayer A.-G., Fed. Rep. Ger.

SO Ger. Offen., 44 pp.

CODEN: GWXXBX

DT Patent LA German FAN.CNT 2

	PATE	NT NO.	KIND	DATE	AP	PLICATION NO.	DATE
ΡI	DE 2	714291	A1	19781005	DE	1977-2714291	19770331 <
	US 4	207227	A	19800610	US	1977-856075	19771130 <
	SE 7	713638	A	19780604	SE	1977-13638	19771201 <
	FR 2	372851	Al	19780630	FR	1977-36404	19771202 <
	GB 1	583457	A	19810128	GB	1977-50304	19771202 <
	JP 5	3071189	A2	19780624	JP	1977-144639	19771203 <
	ES 4	64700	A1	19781101	ES	1977-464700	19771205 <
PRAI	DE 1	976-2654746	A	19761203	<		
	DE 1	977-2714291	A	19770331	<		

AB The title compns., useful in polyurethane prepns., contain 0.5-80% inorg. filler and 99.5-20% (cyclo)aliphatic polyol grafted with 0.01-35% unsatd. carboxylic acid and 0-25% comonomer (polyol CO2H content 0.005-15%). Thus, stirring polyethylene-polypropylene glycol trimethylolpropane ether (3:1) (I) (mol. weight 4800, primary OH content <3%) 200, styrene 10, acrylic acid 20, and tert-Bu peroxyoctanoate 0.5 part 4 h at 90° gave a clear, viscous graft polymer (II) [67184-04-7]. A suspension of 80 parts CaCO3 (average particle size 3  $\mu$ ) in 400 parts I and 52 parts II showed 0.5% settling in 15 days at 21°, compared with 65% in the absence of II.

IT 67183-99-7 67184-01-4

RL: USES (Uses)

(graft, dispersing agents, for suspensions of inorg. fillers in polyols)

RN 67183-99-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN: 79-41-4 CMF C4 H6 O2

CM 2

CRN 79-10-7 CMF C3 H4 O2

CM 3

CRN 52624-57-4 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x CM4 CRN' 77-99-6 CMF C6 H14 O3 СН2−ОН HO-CH2-C-Et  $CH_2-OH$ CM 5 CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O)x CCI PMS

СНЗ

CM 7

CM

6

CRN 75-56-9 CMF C3 H6 O

CRN 75-21-8 CMF C2 H4 O



CN

RN 67184-01-4 HCAPLUS

2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1 .

CRN 79-10-7 CMF C3 H4 O2

O | HO-C-CH=CH2 

CM 2 

CRN 52624-57-4 

CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O) 
$$\times$$
 

CM 3 

CRN 77-99-6 

CMF C6 H14 O3 

CH2-OH 

HO-CH2-C-Et

CRN 75-56-9 CMF C3 H6 O

СНЗ

CM 6

CRN 75-21-8

CMF C2 H4 0

 $\overset{\circ}{\triangle}$ 

L72 ANSWER 22 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1978:511127 HCAPLUS
DN 89:111127
TI Stable suspensions of inorganic fillers in organic polyhydroxyl compounds
IN Von Bonin, Wulf

PA Bayer A.-G., Fed. Rep. Ger.

SO Ger. Offen., 32 pp.

CODEN: GWXXBX

DT Patent LA German FAN.CNT 2

,	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	DE 2654746	A1	19780608	DE 1976-2654746	19761203 <
	US 4207227	A	19800610	US 1977-856075	19771130 <
	SE 7713638	Α	19780604	SE 1977-13638	19771201 <
	BE 861425	A1	19780602	BE 1977-183104	19771202 <
	FR 2372851	A1	19780630	FR 1977-36404	19771202 <
	GB 1583457	Α	19810128	GB 1977-50304	19771202 <
	JP 53071189	A2	19780624	JP 1977-144639	19771203 <
	ES 464700	A1	19781101	ES 1977-464700	19771205 <
PRAÍ	DE 1976-2654746	A	19761203	·<	
	DE 1977-2714291	Α	19770331	<	

AB Polyols grafted with (meth)acrylic acid and, in some cases, other vinyl monomers were used to stabilize suspensions of inorg. fillers in polyols. These suspensions were useful for the manufacture of polyurethanes. Thus, a polyol (I) (mol. weight 4800) prepared from (HOCH2)3CEt, ethylene oxide, and propylene oxide was grafted (200 parts) with 10 parts styrene and 20 parts acrylic acid, and 52 parts graft copolymer was mixed with 400 parts I and 80 parts CaCO3 filler to prepared a stable suspension.

IT 67183-99-7 67184-01-4

RL: USES (Uses)

(graft, for stabilization of polyol-filler suspensions for polyurethane manufacture)

RN 67183-99-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 79-41-4 CMF C4 H6 O2

CM 2

CRN 79-10-7 CMF C3 H4 O2

CM 3

CRN 52624-57-4 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x CM 4 CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 5

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 6

CRN 75-56-9

CMF C3 H6 O

СН3

CM 7.

CRN 75-21-8

CMF C2 H4 O

 $^{\circ}$ 

RN 67184-01-4 HCAPLUS
CN 2-Propenoic acid, polymer with methyloxirane polymer with oxirane ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7 CMF C3 H4 O2

О || НО- С- СН == СН2 CM 2

CRN 52624-57-4 CMF C6 H14 O3 . 3 (C3 H6 O . C2 H4 O)x

CM 3

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 4

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 5

CRN 75-56-9 CMF C3 H6 O



CM 6

CRN 75-21-8 CMF C2 H4 O



=> d his

(FILE 'HOME' ENTERED AT 07:41:06 ON 12 DEC 2006) SET COST OFF

FILE 'HCAPLUS' ENTERED AT 07:41:25 ON 12 DEC 2006
L1 7 S US20060020078/PN OR (US2004-516698# OR WO2003-EP6054 OR DE200 SEL RN

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L2
        75 S E1-E75
L3
             28 S L2 NOT PMS/CI
L4
            1 S L3 AND C6H14O3
L5
             1 S L3 AND C3H4O2
L6
            1 S L3 AND C4H6O2
            47 S L2 NOT L3
L7
            12 S L7 AND 1/NC
L8
L9
            35 S L7 NOT L8
L1.0
            16 S L9 AND 77-99-6/CRN
L11
            16 S L10 AND C2H4O .
            16 S L11 AND C3H6O
L12
L13
            4 S L12 AND 4/NC
            12 S L12 NOT L13
L14
             SEL RN 4 9 11
L15
             3 S E76-E78
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L16
L17
             STR
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L18
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L20
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             50 S L21
L22
L23
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L24
            50 S L17 SAM SUB=L23
        15641 S L17 FUL SUB=L23
               SAV TEMP L25 NUTTER516A/A
L26
           497 S L25 AND (75-21-8 OR 25322-68-3)/CRN
L27
           2695 S L25 AND C2H4O
L28
          2198 S L27 NOT L26
L29
           437 S L25 AND (75-56-9 OR 25322-69-4)/CRN
L30
           1208 S L25 AND C3H6O
L31
           771 S L30 NOT L29
L32
           430 S L26-L28 AND L29-L31
           195 S L32 NOT (P OR SI OR N OR S)/ELS
L33
           114 S L33 NOT C6/ES
L34.
L35
           107 S L34 NOT L16
L36
            50 S L35 AND (77-99-6 OR 79-41-4)/CRN
L37
            34 S L35 AND 77-99-6/CRN
L38
            28 S L37 AND (79-41-4 OR 79-10-7)/CRN
L39
           24 S L38 NOT (OC4 OR OC4-C6)/ES.
               SEL RN 1 2 10-12 14 17 10 22 24
           9 S E79-E87
L40
            15 S L39 AND C6H14O3 NOT L40
L41
               SEL RN 12
            1 S E88
1.42
L43
            10 S L37 AND C6H14O3 NOT L39
L44
            16 S L36 NOT L37-L43
L45
            57 S L35 NOT L36-L44
L46
           323 S L32 NOT L35-L45
L47
           51 S L46 NOT (C6 OR OC4 OR OC5 OR OC4-C6 OR C6-C6 OR C5-C5)/ES
           47 S L47 NOT 56-81-5/CRN
L48
L49
            40 S L48 AND (N OR S OR P OR SI)/ELS
L50
            7 S L48 NOT L49
L51
            6 S L50 NOT 28961-43-5/CRN
L52
           410 S L25 AND 107-21-1/CRN
L53
           3059 S L52, L26-L28
L54
           454 S L53 AND L29-L31
L55
           99 S L53 AND 57-55-6/CRN
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L56
              0 S L53 AND C3H8O2 NOT L55
L57
            538 S L54, L55
L58
            108 S L57 NOT L32-L51
L59
             22 S L58 AND UNSPECIFIED
L60
             86 S L58 NOT L59
L61
             16 S L60 NOT (C6 OR OC4 OR OC4-C6 OR C6-C6 OR C5-C5)/ES
L62
             6 S L16 NOT 28961-43-5/CRN
L63
             16 S L62, L40, L42, L51
                SAV L63 TEMP NUTTER516B/A
     FILE 'HCAOLD' ENTERED AT 08:47:00 ON 12 DEC 2006
L64
              0 S L63
     FILE 'USPATFULL' ENTERED AT 08:47:04 ON 12 DEC 2006
L65
             15 S L63
L66
             11 S L65 AND (PD<=20020611 OR PRD<=20020611 OR AD<=20020611)
     FILE 'USPATFULL' ENTERED AT 08:49:41 ON 12 DEC 2006
     FILE 'HCAPLUS' ENTERED AT 08:49:48 ON 12 DEC 2006
L67
             23 S L63
L68
             22 S L67 AND (PD<=20020611 OR PRD<=20020611 OR AD<=20020611) AND P
L69
              0 S L67 AND PY<=2002 NOT P/DT
L70
              7 S L68 AND BASF?/PA,CS
L71
              4 S L68 AND (POPP ? OR DANIEL ? OR SCHRODER ? OR SCHROEDER ? OR J
L72.
             22 S L68-L71
     FILE 'REGISTRY' ENTERED AT 08:52:43 ON 12 DEC 2006
     FILE 'USPATFULL' ENTERED AT 08:53:04 ON 12 DEC 2006
     FILE 'HCAPLUS' ENTERED AT 08:53:31 ON 12 DEC 2006
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